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H.R. 4382

ENERGY MANAGEMENT PARTNERSHIP ACT

(Volume III)

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION

OF THE

COMMITTEE ON SCIENCE AND TECHNOLOGY U.S. HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

SECOND SESSION

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H.R. 4382

ENERGY MANAGEMENT PARTNERSHIP ACT

TUESDAY, MAY 13, 1980

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE AND TECHNOLOGY,
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 2318, Rayburn House Office Building, Hon. Mike McCormack (chairman of the subcommittee) presiding.

Mr. MCCORMACK. The meeting will come to order.

Good morning, ladies and gentlemen. This morning's hearing before the Subcommittee on Energy Research and Production is on the bill H.R. 4382, the Energy Management Partnership Act of 1979. The purpose of this legislation is to more clearly define the relative roles of the Federal, State, and local governments in national energy policy and planning and to provide Federal assistance to State and local governments to promote national energy objectives.

It is, therefore, by nature unusually complicated legislation even though it may not seem to be on the surface.

The Subcommittee on Energy Development and Applications has already conducted hearings on this subject, and Mr. Ottinger, the chairman, will have an opportunity in a few minutes to make some introductory remarks to help us gain a perspective on the legislation and its intent.

The idea of this legislation has been with us for a number of years in a variety of forms. In July 1977, the National Governors Task Force on Energy recommended to the President that a total energy management program be developed at the State level. This would be to manage and implement overall State energy plans.

In July 1978, President Carter proposed his first version of this legislation. It was then too late for the full consideration of the 95th Congress. Since that time, the administration has produced two more versions of the legislation, and in addition, a number of Members of Congress have also prepared drafts of similar legislation.

The version officially under consideration today is President Carter's first version this year. Our hearing today will consider the implications of various versions of this legislation and not confine itself exclusively to the one draft which is before us.

There are a number of portions of this bill which are of particular concern to this subcommittee. The issue of comprehensive energy planning at the State level is of special importance because our subcommittee, more than any other, deals with energy sources of the future. We want to be certain that this legislation is realistic in its treatment of all of our emerging energy sources and that we not mislead the American people into assuming that conservation alone or conservation in combination with what is referred to as the renewable energy resources can provide or come close to providing the energy this Nation will need in the future.

We are concerned about the impact of this legislation not only on the concept of State planning but also on the utilities that must provide the future energy that this society must have. For this reason, we have solicited the views not only of the Federal Government itself and the administration, but also of the utilities of the Edison Electric Institute and representatives of State and local governments.

I am pleased that the distinguished group of witnesses we have been able to obtain are here. They are here on relatively short notice.

Representing the Department of Energy are Dr. Maxine Savitz, an old friend and a person we greatly respect. She is the Deputy Assistant Secretary for Conservation. She is accompanied by Dr. Stanley Weiss, Deputy Assistant Secretary of Industrial and Utility Applications and Operations; and Dr. Shelby Brewer, Director of the Office of Plans and Evaluation.

Mr. Paul Greiner, vice president of customer relations, is with us from the Edison Electric Institute.

I am also happy to have the distinguished State and local witnesses, including Hon. Paul Redfearn, Mayor of Springfield, Mo.; and Hon. John Hutchinson, Mayor of Charleston, W. Va.; and the representative of the National Governors Association, Mr. Mike Grainey, Deputy Director of the State of Oregon Department of Energy.

Now, I would like to ask the staff to review the legislation and explain it for the record.

Dr. Lanes, would you care to start off?

Dr. LANES. Thank you, Mr. Chairman.

The purpose of this bill, as you know, is to amend the Energy Policy and Conservation Act to provide assistance to States and political subdivisions within the States, and promote national energy objectives.

The bill seeks to consolidate the administration of energy planning activities at the Federal and State levels, to simplify grant procedures, to encourage a comprehensive and coherent energy planning and management system within each State, to guarantee the flexibility of approach which each State and local condition demand, and to provide the coordination of State and local efforts with national policies and Federal programs.

A major impact of this legislation would be to consolidate and coordinate many of the current State energy programs. As you have

mentioned, Mr. Chairman, the Energy Development and Applications Subcommittee has already held a hearing on this bill. I am going to ask Mr. Steinway, a staff member for that subcommittee, to say a few words about what that hearing has found.

Then we will have Dr. Dugan express the views of the minority on the bill.

Mr. STEINWAY. Thank you, Mr. Chairman.

As you noted in your opening statement, the National Governor's Task Force back in July 1977 recommended to the President that a total energy management program be established at the State level. During the 95th Congress and in July 1978, the administration submitted a bill on this subject. In this Congress, the administration again submitted a bill, the Energy Management Partnership Act.

The Subcommittee on Energy Development and Applications held joint hearings with the Commerce Committee in the first session of this Congress on this bill. In this session of Congress, the subcommittee recently held hearings last week during which a staff draft was considered.

The staff draft combines elements of the administration's bill, as well as elements of the Community Energy Act which was introduced by Senator Tsongas. Title I would provide for a State program consolidating the three outstanding State programs right now in the legislation and the Energy Extension Service. The Energy Extension Service was established by our committee during fiscal year 1977.

Titles 2 and 3 would provide for local government program initiatives. Title 2 would provide for competitive grants for 2 fiscal years with funds authorized out of the solar and conservation reserve, which was established in the Interior appropriations bill, Public Law 96–126.

Title 3 of the staff draft establishes the local governments energy conservation bloc grant program which would be authorized for 3 fiscal years with funding to come out of the solar and conservation reserve established in the Interior appropriations bill.

This summarizes what our subcommittee has done.

Dr. DUGAN. Mr. Chairman, in the three bills, the EMPA, the Community Energy Act, and the staff draft, the subcommittee staff presented provisions on related issues that raised great concerns with the minority. The first issue was the budget impact question of new programs, at least $68 million in new programs for local grants in the legislation.

The second aspect was one you alluded to, the question of the policy ramifications of comprehensive energy and emergency planning for all energy sources.

I think the final major issue was the overlap of our programs which have been mushrooming so rapidly within the Department of Energy and other departments, and the ramifications of this legislation for the outreach programs, as well as new outreach programs, and as to how this relates to the solar and conservation bank and other new activities.

Mr. OTTINGER. I would like to make a comment. I think that the working out of this legislation is somewhat complex. The concept is relatively simple. I would hope that we could reach an accommo-

dation with the minority because it seems to me that the thrust of the minority has been to decentralize the decisionmaking to the States and local governments with regard to the whole spectrum of Federal programs. There is an attempt to consolidate the programs to do this.

With respect to the funding of the legislation, there is presently in the DOE authorization bill $105 million of this funding, and with respect to the $68 million in local grants, it was our contemplation to see if we could not tap the 1980 funds that have already been authorized from the $1 billion set-aside for the synthetic fuels corporation, out of which will also be funded the solar bank or the conservation bank.

That would put them in a position of competing for those funds, and the Department would have to determine the priorities between the various programs.

There is a need for the coordination of a complex series of programs, as Dr. Dugan pointed out. We have to give attention to this.

At this juncture, Mr. Chairman, in consultation with the chairman of the full committee, we determined that because of the minority opposition, that we need to work this out. We would not seek to hold a markup on this legislation tomorrow. The minority would have a right to insist on the 3-day layover to prepare their views. This will prevent us from meeting the May 14 deadline.

The Commerce Committee also has concerns with respect to various provisions.

I have a commitment to move promptly on this, and the chairman of the full committee wants to move promptly on it. I would hope we can work out a compromise with the minority here and with the Commerce Committee to enable us to move forward on the legislation, which I think is long overdue.

It has been before us for a year. I authorized the legislation from the 1980 funds in the DOE authorization. This would be provided that we can agree on this as to the authorization for funding in future years.

With respect to emergency planning, the Commerce Committee staff informs me S. 930 makes substantial provision for this. We want to make sure that what we do does not conflict with that legislation.

With respect to the problem that Mr. McCormack had raised at the outset, while he and I may differ on the priority that will be given the conservation and renewables of my forecast for their contribution—and it is probably a little greater than his forecast—but there is no intent in his legislation to prejudge the State planning for its needs in the future.

I talked to Dr. Savitz, who will be testifying before us shortly, with respect to the intent. The intent is the States should plan for their energy needs, and the States would use those energy needs, including nuclear, coal or whatever it may be, and perhaps that would somewhat alleviate the chairman's concern.

My intent is to do some additional drafting on this and to see if we can work out the various differences that have appeared and move forward with the legislation as quickly as possible.

Thank you, Mr. Chairman.

Mr. McCORMACK. Thank you.
You meant 932, didn't you?
Mr. SPENSLEY. 1030 was already enacted last year.
Mr. McCORMACK. I was not sure I understood you.
Mr. OTTINGER. Thank you.
Mr. McCORMACK. Now, Mr. Royer is present this morning. Have you any comments you would like to make?
Mr. ROGER. No. Thank you Mr. Chairman.
Mr. OTTINGER. The changes we made in our draft were basically two. We want to focus on them as well. The Senate bill provides for a block grant for local community participation that will be administered by the Department of Housing and Urban Development. I understand this provides for a competitive grant rather than another type because some communities are more advanced in their planning, and they are well able to utilize the funds; whereas, others have not either formed either State or local plans to be able to efficiently utilize funds.
Rather than spread those out to communities that are not prepared to use them in the initial 2 years, we have provided for competitive funding. We have decided that this should be provided by the Department of Energy.
It is our feeling that the State and local efforts in energy really ought to be coordinated and very closely related to the activities of the Department of Energy. There ought to be a continuing relationship there.
While they have an ongoing mechanism to deal with local communities which is salutary, it is also important to create within the Department of Energy an ability along these lines in a relationship with local communities to carry out the energy programs.
Those are the major differences between our draft and the administration's bill.
I thank the chairman for his indulgence.
Mr. McCORMACK. I thank the gentleman.
Is there anything else?
Mr. LANES. No; Mr. Chairman. I believe we are ready to proceed with the first witness.
Mr. McCORMACK. Thank you. Without objection Mr. Wydler's written statement will be included at this point in the record.

STATEMENT OF HON. JOHN WYDLER

Mr. Chairman, there are several issues which are of great concern to the minority with this bill. First of all it is an energy policy bill, make no mistake about that. It also is legislation with a built-in identity crisis. The bill provides funding for State energy planning in the broadest sense with major implications for energy supply, for example, nuclear and fossil plant deployment, yet the funding specified in the bill is tagged to conservation and renewable sources. This question is further clouded by the fact that "conservation" is a term used in a way that it implies much more than simply improved energy efficiency. Mr. Chairman, I think the minority would very much like to know why the Deputy Secretary of DOE wants this bill so badly.
We are pleased that the committee chairman has decided not to attempt to report the bill this week so as to minimize budget impact for fiscal year 1981. This saves us at least $68 million in appropriations and additional time for consideration can only lead to better legislation.

Another major issue we must explore is that this bill authorizes new energy outreach programs while presumably absorbing others such as the energy extension service. Energy outreach programs in the Federal Government have almost quadrupled in the past four years to the level of $285 million for fiscal year 1980. This figure does not include administration of the solar and conservation banks of HUD in the coming year or the expanding programs in other departments for which there are no budget estimates. The DOE report to the Congress in the energy extension service included the following major conclusions about the Federal energy outreach effort.

This is what the people who manage outreach are saying about the programs:

Federal energy outreach activities have not been viewed as part of a comprehensive and integrated program;

There is insufficient information to determine whether, as part of this program, we have the most effective and efficient mix of activities;

There is insufficient information to determine whether the activity duplication which may exist is necessary or unnecessary; and

There has not been sufficient emphasis on program evaluation to determine impact on client behavior and energy savings.

An additional institutional question raised is the role of the regional solar energy centers (RSEC's) in outreach programs. There I think it is safe to conclude that there are serious enough questions about the substance of this legislation that we should give it very careful scrutiny.

Thank you.

We welcome Dr. Savitz.

Before we start, may I pay my appropriate respects. Our first witness is Dr. Maxine Savitz, Deputy Assisant Secretary for Conservation of the Office of Conservation and Solar Energy, Department of Energy.

She is accompanied by Dr. Stanley Weiss, Deputy Assistant Secretary, Industrial and Utility Applications and Operations in the Resource Applications Division. We also have Dr. Shelby Brewer, Director of the Office of Plans and Evaluation, Office of Nuclear Energy, Department of Energy.

Our witnesses are old friends and highly respected. We are pelased to have you back, and you may proceed as you wish.

STATEMENT OF DR. MAXINE SAVITZ, DEPARTMENT OF ENERGY

Dr. SAVITZ. Thank you. We are pleased to be here to discuss the administration's proposed Energy Management Partnership Act, or EMPA.

I would like to submit my entire statement for the record.

Mr. MCCORMACK. Without objection, it may be included in the record.

Dr. SAVITZ. First: EMPA should encourage States which do not already have an effective energy management capability to develop their own overall energy supply and conservation plan in cooperation with local governments.

Second: EMPA would consolidate and simplify administrative procedures for three major existing grant programs—the EPCA and ECPA State energy conservation programs and the Energy Extension Service. It would provide States with greater flexibility in the use of Federal funds under the consolidated grant program.

It would also permit States to consolidate applications for other assistance programs administered by DOE. By cutting redtape and giving States greater flxibility to tailor programs to meet their needs,

more money will be available for implementing energy programs, and less required for grant administration.

Third: EMPA would provide funding to State and local governments in support of conservation and the increased use of renewable resources, such as solar, geothermal, small-scale hydropower, biomass and wind. State and local governments must work to remove the technical, economic and institutional barriers which stand in the way of increased renewable resource use. They are important partners with the Federal Government in the drive to achieve the President's national goal of 20 percent renewable energy use by the year 2000.

Fourth: EMPA would provide support for the development of State energy emergency plans consistent with the Emergency Energy Conservation Act of 1979.

Fifth: EMPA would provide Federal funds to help States cover the costs of other Federal or State initiated energy programs.

In these five ways EMPA will help to increase the role of State and local governments in managing our energy problems, and provide a framework for Federal, State, and local activities. This kind of cooperative framework is needed if the Nation is to succeed in its effort to achieve an orderly transition away from oil imports and depletable fuels toward a domestically based renewable resource energy system.

The administration's revised EMPA bill requires each State to include in its energy plan reasonable measures the State plans to implement to remove barriers to the use of renewable resources in the State. The State plan must include steps to:

One: Encourage the application, where practicable, of renewable resources in end-use sectors;

Two: Encourage participation by financial institutions and other organizations in the activities necessary to facilitate renewable resource use;

Three: Assess the applicability of practicable renewable resources technologies in buildings owned by the State and units of local government;

Four: Provide for intervention by the State and others in electrical and gas utility regulatory proceedings, where appropriate, to insure that any proposed regulatory decision does not discriminate unfairly against the use of renewable resources;

Five: Provide information that will promote consumer protection; and

Six: Implement other measures which the State determines to be appropriate.

The revised bill also provides the Secretary with $50 million of authority for 5 fiscal years to distribute financial assistance to local government and regional councils for the development and implementation of activities designed to encourage energy conservation and the increased use of renewable resources.

The local government grants will be awarded to local government and regional councils which have a commitment to energy conservation and the increased use of renewable resources, which have coordinated their plans with their State government and which encourage citizen participation. These would be instituted on a competitive basis.

Mr. Chairman, I would like to address three specific questions which you posed in your letter of invitation for this hearing. First, you asked why the administration has determined that the EMPA grant programs should be administered by DOE and not HUD or some other Federal agency.

To this I can reply that the administration is committed to building a mutually supportive energy partnership among all levels of government. As a result, we believe that it is important to place overall responsibility for managing both the State and local components of this program in a single Federal agency. This will serve to further cooperation among States and local governments and promote overall program coordination.

Since DOE is already the lead Federal agency for both State and local energy assistance programs, it is the logical and proper home for the expanded State and local energy programs envisioned in EMPA.

DOE has the administrative and technical expertise, both at headquarters and the regional offices, and through DOE funded programs at the Solar Energy Research Institute, the regional solar energy centers, the national laboratories and elsewhere, to provide local and State governments with the assistance necessary to support successful energy programs.

I think this would provide more coordination with the outreach programs so we do not have any duplicaton.

Second: You asked about the relationship of EMPA with the proposed conservation and solar bank legislation now in conference. These two programs are quite different in approach, target audience, and immediate objective. The intent of the solar and conservation bank is to assist individual owners and builders of residences and commercial buildings to purchase solar and energy conserving systems.

EMPA would assist States, regional councils, and local governments to plan and manage energy programs so that they can better support the achievement of national energy goals and respond creatively to unique State and local energy needs and opportunities. The renewable-resource provisions required under EMPA relate to specific institutional barriers that the President's solar domestic policy review found State and local governments to be best able to address.

In short, neither EMPA nor the conservation and solar bank can be a substitute for each other, and yet their combined impact is complementary.

Third: You expressed interest in the extent to which small-scale hydropower, geothermal, nuclear, and other energy sources within the jurisdiction of the Energy Research and Production Subcommittee are treated in this legislation. EMPA provides for the planning and management of energy programs that address energy supply, as well as energy demand concerns. Since EMPA would replace the existing Energy Extension Service, EPCA and ECPA conservation programs, at least 60 percent of the State portion must be used to support conservation, renewable resources, and emergency energy conservation planning.

The remainder of the funds can be used for a wide range of energy management activities so long as, first, they are not inconsistent with

Federal law or programs; and, second, they do not pay for actual capital or construction costs.

This would provide an opportunity for the first time for State and local governments to do both their planning on the supply-and-demand side together to satisfy their own particular requirements.

Small-scale hydropower and geothermal energy are specifically included under the definition of "renewable resources" and would be eligible for funding under both the State and local components of EMPA. The bill requires each State to include energy supply planning as part of its overall energy plan. It also requires each State to perform a "need for power" determination, the results of which would help the States to consider their needs for future energy supply facilities, including nuclear and coal plants, and to support a timely selection of sites for such facilities.

In short, EMPA provides the framework for comprehensive energy planning and management and does not preempt any existing State, regional, or local energy supply programs.

Accompanying me today are Stanley Weiss, Deputy Assistant Secretary for Industrial and Utility Applications, Office of Resource Applications, and Shelby Brewer, Director of the Office of Plans and Evaluation, Office of Nuclear Energy. We would be pleased to answer any questions that you and the other members of the subcommittee might have.

Thank you. We will be glad to answer any questions.

[The prepared statement, plus answers to additional questions asked of Dr. Savitz follows:]

STATEMENT OF

MAXINE SAVITZ
DEPUTY ASSISTANT SECRETARY FOR CONSERVATION
OFFICE OF CONSERVATION AND SOLAR ENERGY

U. S. DEPARTMENT OF ENERGY

FOR

A HEARING BEFORE THE
HOUSE SCIENCE AND TECHNOLOGY COMMITTEE
SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION

May 13, 1980

Mr. Chairman:

Events over the past several years dramatically illustrate many of the weaknesses and pitfalls inherent in pursuing any national policy without the full participation of State governments and localities. Nowhere is this more true than in energy. State and local governments played major roles during the gasoline shortages experienced in many regions of the country last year, as well as in other fuel emergencies over the past decade.

There are some excellent State and local programs being implemented for conservation and renewable resource development that have been supported with and without Federal assistance.

If our national effort to reduce consumption of foreign oil and to encourage a transition to renewable resources is to succeed, we must build a framework for a mutually supportive energy partnership among all levels of government. With these objectives in mind, the Administration has proposed the Energy Management Partnership Act or "EMPA."

With regard to the States and local governments, we believe the Administration's revised EMPA is needed for the following reasons:

First, EMPA would encourage States which do not already have an effective energy management capability to develop their own overall energy supply and conservation plan in cooperation with local governments.

Second, EMPA would consolidate and simplify administrative procedures for three major existing grant programs -- the EPCA and ECPA State Energy Conservation Programs and the Energy Extension Service. It would provide States with greater flexibility in the use of Federal funds under the consolidated grant program. It would also permit States to consolidate applications for other assistance programs administered by DOE. By cutting red tape and giving States greater flexibility to tailor programs to meet their needs, more money will be available for implementing energy programs, and less required for grant administration.

Third, EMPA would provide funding to State and local government in support of conservation and the increased use of renewable resources such as solar, geothermal, small-scale hydropower, biomass, and wind. State and local governments must work to remove the technical, economic, and institutional barriers which stand in the way of increased renewable resource use. They are important partners with the Federal Government in the drive to achieve the President's national goal of 20 percent renewable energy use by the year 2000.

Fourth, EMPA would provide support for the development of State energy emergency plans. Consistent with the Emergency Energy Conservation Act of 1979.

And fifth, EMPA would provide Federal funds to help States cover the costs of other Federal or State initiated energy programs.

In these five ways EMPA will help to increase the role of State and local governments in managing our energy problems, and provide a framework of Federal, State, and local activities. This kind of cooperative framework is needed if the Nation is to succeed in its effort to achieve an orderly transition away from oil imports and depletable fuels, towards a domestically-based renewable resource energy system.

The Administration's revised EMPA bill requires each State to include in its energy plan reasonable measures the State plans to implement to remove barriers to the use of renewable resources in the State. The State plan must include steps to encourage the application to;

(1) encourage the application, where practicable, of renewable resources in end-use sectors;

(2) encourage participation by financial institutions and other organizations in the activities necessary to facilitate renewable resource use;

(3) assess the applicability of practicable renewable resource technologies in buildings owned by the State and units of local government;

(4) provide for intervention by the State and others in electrical and gas utility regulatory proceedings, where appropriate, to ensure that any proposed

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regulatory decision does not discriminate unfairly against the use of renewable resources;

(5) provide information that will promote consumer protection; and

(6) implement other measures which the State determines to be appropriate.

The revised bill also provides the Secretary with $50 million of authority over 5 fiscal years to distribute financial assistance to local government and regional councils for the development and implementation of activities designed to encourage energy conservation and the increased use of renewable resources. The local government grants will be awarded to local government and regional councils which have a commitment to energy conservation and the increased use of renewable resources, which have coordinated their plans with their State government and which encourage citizen participation.

Mr. Chairman, I would now like to address three specific questions which you posed in your letter of invitation for this hearing. First, you asked why the Administration has determined that the EMPA grant programs should be administered by DOE and not HUD or some other Federal Agency. To this I can reply that the Administration is committed to building a mutually supportive energy partnership among all levels of government. As a result, we believe that it is important to place overall responsibility for managing both the State and local components of this program in a single Federal Agency.

This will serve to further cooperation among States and local governments and promote overall program coordination. Since DOE is already the lead Federal Agency for both State and local energy assistance programs, it is the logical and proper home for the expanded State and local energy programs envisioned in EMPA.

DOE has the administrative and technical expertise, both at Headquarters and the Regional offices, and through DOE funded programs at the Solar Energy Research Institute, the Regional Solar Energy Centers, the national laboratories and elsewhere, to provide local and State governments with the assistance necessary to support successful energy programs.

Second, you asked about the relationship of EMPA with the proposed Conservation and Solar Bank legislation now in conference. These two programs are quite different in approach, target audience, and immediate objective. The intent of the Solar and Conservation Bank is to assist individual owners and builders of residences and commercial buildings to purchase solar and energy conserving systems. EMPA would assist States, regional councils and local governments to develop the capacity to plan and manage energy programs, so that they can better support the achievement of national energy goals, and respond creatively to unique State and local energy needs and opportunities. The renewable resource provisions required under EMPA relate to specific institutional barriers that the President's Solar Domestic Policy Review

Department of Energy
Washington, D.C. 20585

June 12, 1980

Dear Mr. Lanes:

Attached you will find answers to questions submitted to Maxine Savitz, Deputy Assistant Secretary for Conservation and Solar Energy of the Department of Energy, for the hearing before the House Committee on Science and Technology, of the Subcommittee on Energy Research and Production on May 13, 1980.

If you have any questions please do not hesitate to contact me directly on 252-5777.

Sincerely,

Frank R. Pagnotta

Frank R. Pagnotta
Director
Office of The Secretary

Mr. Steven Lanes
Staff Director
Subcommittee on Energy
Research and Production
Room B-374, RHOB
Washington, D.C. 20515

Follow-Up Q's and A' to EMPA Hearing
May 15, 1980

1.Q. Relative to the requirement of 40 percent funding under subpart A for non-conservation and non-renewables:

(a) What type of activities are anticipated?

(b) Can they include energy production planning such as geological surveys on uranium mine planning or boom town preparations?

(c) Can they subsidize ongoing planning activities of the Public Utility Commission?

(d) Could this include planning for nuclear or coal waste disposal?

(e) Could it include energy supply related emergency planning?

A. A major premise underlying EMPA is that States and local governments should be permitted to use a substantial portion of EMPA funds to develop programs that are tailored to their own individual needs, priorities, resource base, opportunities and constraints. While EMPA does properly require each State to develop and implement a set of measures, it gives them considerable flexibility as to the specific approachs that they would take. Moreover, States are given wide latitude in the use of the funds that are not required for the mandatory programs.

It is important to clarify that EMPA specifies that a minimum of 60 percent of the funds allocated to the States are to be used for the development and implementation of energy conservation and renewable-resource programs and energy emergency planning. Some States may wish to spend more in these program areas while others may not.

Activities relating to energy supply forecasting, planning and management would qualify for EMPA funding so long as: 1) they are not inconsistent with Federal law or programs (Section 353(b)(2)); and 2) the funds would not be used to pay for construction costs or the purchase of real property or equipment (Section 358(f). Since each of the examples listed in this question meet these tests, States could use EMPA funds to support these activities.

2.Q. How was the 40 percent funding figure determined?

(a) Did the Gocernors also set conservation as their priority?

(b) Do you feel that the 60 percent funding level for conservation and renewables in energy planning is appropriate for all States, including the sparsely populated energy producing States like Montana and Wyoming?

A. The 60 percent minimum funding figure for conservation and renewable resource programs was recommended by a National Governors' Association task force (comprised of representatives from approximately 20 States) in a 2-day session with DOE officials on the requirements for EMPA. We believe the 60 percent figure to be an appropriate "floor" level for all States. It should be noted that the States would actually be required to use less Federal funds for conservation and renewables under EMPA than they are now, under the combined EPCA, ECPA and Enegy Extension Service grant programs that would be consolidated under EMPA.

3.Q. Does the Administration endorse:

(a) The $155 million funding level in the Administration's original budget less the $25 million reduction in the Administration's revised budget?

A. (a) The Administration endorses an authorization of appropriation of $155 million per year for 5 fiscal years of which $105 million would be for the State portion and $50 million for local governments. However, the Administrations' revised budget for FY 81 recommends a $25 million reduction in the local government portion for the upcoming fiscal year only.

Q. (b) Intervenor funding in utility proceedings?

A. (b) EMPA's renewable resource section (Section 356) requires each State to take steps to "provide for intervention by the State and others in electrical and gas utility regulatory proceedings, where appropriate to ensure that any proposed regulatory decision does not discriminate unfairly against the use of renewable resources." The Administration has no position on intervenor funding on siting proceedings, and EMPA neither specifically supports nor prohibits such activities.

Q. (c) A new provision for the subject bill which would allocate such sums as are necessary in fiscal years 1983 to 1985 for Energy Block Grants to local governments?

A. (c) The Administration supports providing grants to local governments and regional councils on a competetive basis as in the amounts stipulated in the EMPA legislation.

4.Q. How will this proposal relate to the similar proposed legislation?

(a) Do you see it as duplicating any activities of the Department of Housing and Urban Development such as the Conservation and Solar Bank or their Energy Block Grant Program. How would you coordinate your program with HUD?

A. (a) EMPA and the Conservation and Solar Bank are quite different in approach, target audience, and immediate objective. The intent of the Solar and Conservation Bank is to assist individual owners and builders of residences and commercial buildings to puchase solar and energy conserving systems. EMPA would assist States, regional councils and local governments to plan and manage energy programs, so that they can better support the achievement of national energy goals, and respond creatively to unique State and local energy needs and opportunities. The renewable resource provisions required under EMPA relate to specific institutional barriers that the President's Solar Domestic Policy Review found State and local governments to be best able to address. In short, neither EMPA nor the Conservation and Solar Bank can be a substitute for the other, and yet their combined impact is complementary.

The Administration is opposed to legislation currently before Congress that would create a new Energy Block Grant Program in HUD such as may be found in the legislation proposed by Senators Tsongas and Williams (S.2576) and Congressman Markey (HR 7136). Attached is a copy of a letter from Deputy Secretary Sawhill to Senator Tsongas which clarifies this point.

DOE supports and encourages complementary efforts by other Federal agencies to augment EMPA funding by channeling portions of their financial assistance to support local energy conservation and renewable resource activities. In fact, this is one application of the concept embodied in the President's Executive Order 12185 that was issued earlier this year. In particular, DOE intends to cooperate with HUD to develop initiatives to encourage the use of the Community Development Block Grant and the Urban Development Action Grant funds for conservation and renewable resource planning, programs and capital projects. DOE would hope to work closely with HUD to insure that the EMPA programs and the HUD funded initiatives are well coordinated.

Q. (b) Will the utility provisions of this bill duplicate the Administration's State planning provisions contained in the Oil Backout legislation?

A. (b) No. Other than as requirement to project the States' future need for utilities, EMPA's only utility provision requires the State to provide for intervention in utility regulatory proceedings to ensure that proposed regulatory decisions do not unfairly discriminate against the use of renewable resources. Under the Administration's Backout legislation, $10 million would be provided for consumer intervention, to assure that consumer interests would be represented in the approval determination of a utility's "Fuel Displacement Plan." Since the EMPA provision focuses on intervention on behalf of renewable resources, in any regulatory proceeding, it does not duplicate a provision that relates only to the consumer aspects of a utility's "Fuel Displacement Plan."

Q. (c) How will this legislation relate to the Conservation provisions of Title V of S.932 other than the Conservation and Solar Bank, the Fuel Use Act, or the Public Utilities Regulatory Policies Act?

A. (c) The uses of the grants made to the State under S932, Section 141 of PURPA, and Section 681 of PIFUA would be described in the State energy plan if the State intends to use those funds to implement its State energy plan. Further, the State energy plan must be consistent with the assistance provided under Section 681 of PIFUA. Finally, since all State energy program applications could be consolidated under EMPA, the S.932 amendments to these programs would affect the consolidated applications.

Q. (d) If the bill is enacted, would you coordinate the Department's activities with other departments and agencies with an interest in energy planning and outreach, such as Interior and Agriculture? Are similar coordination efforts being conducted at this time?

A. (d) Yes. The President's decision to initiate Executive Order 12185 represents a major effort to support and coordinate energy conservation efforts throughout the Executive branch. This order requires that energy efficiency guidelines be incorporated into all Federal assistance programs which offer opportunities for significant conservation of petroleum and natural gas. The Executive Order is being implemented and coordinated by the President's Interagency Coordinating Council. An integrated set of proposed regulations for all affected agencies was released on May 7, 1980, in the Federal Register.

Regarding the coordination of outreach efforts, DOE is now in the process of developing its fourth Comprehensive Program and Plan for Federal Education, Extension and Information Activities to improve the coordination of energy outreach efforts throughout the government.

5.Q. Do you anticipate that the Energy Emergency Planning under this act will be coordinated with the work being done by the Federal Emergency Management Agency or DOE's Energy Information Agency?

A. DOE will work to ensure that the energy emergency planning provisions of EMPA will be closely coordinated with the activities of the Federal Emergency Management Agency and DOE's Energy Information Agency.

6.Q. Do you anticipate, if this bill is enacted, the need to supply any defense related energy information to State governments if the defense facility is within the State's border?

A. There is no need to supply defense related energy information unless the disclosure of the information is "consistent with applicaple law." Further, such information need be disclosed only to the extent that such disclosure is "practicable." Consequently, if the national security depended on the confidentiality of certain energy related information, such confidentiality could be retained.

Mr. McCORMACK. Thank you very much.

Now, my questions may not be directed so much to the structure of the bill as to some of the philosophy and the impressions behind it. Let me ask you first of all, in the bill 4382, under Definitions, on page 4, line 17, it says renewable resources mean any source of energy that is regenerative or essentially inexhaustible. I take it that includes the breeder reactor programs.

Dr. SAVITZ. We included solar and geothermal and biomass as examples. We did not include or exclude fusion.

Mr. McCORMACK. Why do we list everything but the two mainline energy sources, nuclear fission and coal as being essentially inexhaustible when they constitute more energy than the others combined?

Dr. SAVITZ. We are referring to the more typical renewables that are related to the solar energy. Our intent is very clear. The State supply plan, however, may include all of the supply options including fusion and fission.

Mr. McCORMACK. The whole bill seems slanted toward everything but those, everything but the real energy sources that we have available to us. We seem to be talking as if we are going to be making our plans around solar and geothermal energy and low head hydro, all of which are completely viable energy technologies and will provide some energy, but it strikes me very strange that in the context of the bill the impression is that planning will be around theses sources exclusively, rather than around the major sources of energy.

The State governments and local governments may not have the expertise to recognize the fact that they cannot possibly solve their energy problems with the so-called renewables you have listed without nuclear energy or coal. You are, in effect, leading them into a trap wherein they would focus their attention on totally inadequate solutions to their problems.

Dr. SAVITZ. This raises two issues. One is the focus of the bill. The bill's requirements may appear heavy toward conservation or solar since it consolidates existing programs that are already geared toward conservation, such as the extension service that we are trying to coordinate as to management.

Second, in our testimony it is mentioned that the bill requires each State to perform the need for power determination which would help the States consider their needs for future energy facilities, including nuclear and coal plants, and support a timely selection of sites.

We want to use this mechanism to support supply planning and to insure that the States coordinate their demand and supply planning. On the supply side, we want to encourage States to identify early where the sites are for the supply and generation, and get moving on with the planning and implementing of it.

Mr. McCORMACK. You mentioned the administration's position of providing 20 percent of our energy from renewables by the year 2000. You are not using the word solar any more, but renewable energy by the year 2000. I would like to ask several questions about this.

If we could do a little exercise here on the amount of energy that we would expect to get—and incidentally, first I should comment that in February Secretary Duncan promised the Committee on Science and

Technology that the Department would forthwith produce for us and the public a projection of energy consumption and production by individual technologies for the balance of the century, for 1980, 1995 and the year 2000.

We have received repeated notices of delays. The Department seems unable to produce these figures. I am confident the reason they cannot produce them is because any honest intellectual effort to do so would show the total unreality, if I may be charitable, of the suggestion that we can obtain 20 percent of our energy from solar energy and other renewable sources by the year 2000.

I have been trying to get the administration to be realistic, to be honest with the people, and to tell the truth. The context of your statement, in part, is based upon the administration's pretense of propaganda that 20 percent of our energy will come from solar and renewables, other than nuclear, by the end of the century.

So the administration is thus far refusing to provide the Congress with accurate information on this subject, and is going ahead with legislation based upon totally unsupportable public relations statements.

Mr. OTTINGER. Will you yield?

Mr. MCCORMACK. I will not yield at this point.

This is not a criticism of you, Doctor. Unfortunately, you are just the person here before us from the administration.

But let me go through a little drill with you, if I may.

Dr. SAVITZ. Yes.

Mr. MCCORMACK. We have completed calculations of the potential of nonnuclear renewables, and I try to share them with as many people as possible. If we put 15 million residences, that is, 20 percent of all residences of this country, or every fifth residence, such as apartments, private homes, condominiums, on solar heating and cooling, the total solar energy production would be equivalent to almost exactly 1 million barrels of oil a day. That is not insignificant, but it is only 1 million barrels of oil a day.

If we developed 20 solar electric plants like the plant in California, which I understand the Office of Management and Budget wants to cancel because it is extravagantly expensive——

Dr. SAVITZ. It is the House Committee on Appropriations that cut that.

Mr. MCCORMACK. If we had 20 of these, they would produce 15,000 barrels of oil a day. If we had 100 of the two megawatt windmills and 100,000 of the 1 kilowatt windmills, they would produce 5,000 barrels of oil a day. If we had 200,000 photovoltaic units of 100 kilowatts each at peak power, they would be equivalent to 200,000 barrels of oil a day.

If we had 100 ocean thermal conversion plants of 100 megawatts each, that would be 30,000 barrels of oil a day. If we converted two-thirds of our waste, including municipal garbage, that would be about 1 million barrels of oil a day.

All these would give us a total of about 2¼ million barrels of oil a day. This is for all the solar heating, cooling, and electric production, all the wind energy you could hopefully have, all the photovoltaics we could expect, all the ocean thermal conversion, and the bioconversion. These would give us 2¼ million barrels of oil a day.

Furthermore, increasing the number of the assumed facilities does not substantially change this conclusion. For instance, if you want to increase the number of windmills by 10 or by 100, that does not change the numbers significantly. Or, if you have 10 times as much photovoltaic energy, the bottom line is modified only slightly.

The figure of 2¼ million barrels per day of oil is only 4 percent of the administration's projected energy consumption in the year 2000. That does not include geothermal energy.

You are aware, I think, Doctor, that assuming 5,000 megawatts of geothermal energy in the year 2000 would be extraordinarily optimistic. Additionally, if we were to increase our hydroelectric potential to all of the sites we are ever going to develop, that would only be about one-half million barrels of oil per day.

So, all told, we would be well below the 20-percent projection with all the hydro and all the new hydro, the new geothermal, all the new solar of every sort, and all the bioconversion. This would amount to less than 3 million barrels of oil a day. All of it together would be about 6 percent of our energy by the year 2000.

Yet we go on making policy and writing legislation based on the assumption that the 20-percent figure is realistic.

Would you care to comment on this?

Dr. SAVITZ. I do not have the numbers before me; I am sure we could get them for the record, but they would show that we would be able to get to the 20 percent if you look at the year 2000 projections as being 100 quads. Then you are talking about 20 quads of renewables. That would be 10 million barrels a day.

I think part of the area——

Mr. MCCORMACK. You would have to include all hydroelectric in the country, including all Tennessee Valley Authority dams, all existing dams in the Tennessee Valley, all existing dams in the Bonneville Power Administration, all the existing dams on the Columbia River, all those on the Missouri River, and every other existing hydroelectric dam. This is more than three-quarters of all the hydroelectricity we will ever have. You count that as new additional solar energy?

Dr. SAVITZ. We count hydros; yes. We have underestimated the contributions from wood and biomass that are being made by communities.

Mr. MCCORMACK. Is it honest to take all of the existing energy technologies and simply pretend that they are something else and count them up and not tell the people you subtracted them from the other column?

Dr. SAVITZ. I think we all have to give our honest numbers to the people so they can make honest decisions. I think the areas of biomass and wood have made a lot of push in the last few years.

Mr. MCCORMACK. What are your figures on how much we are getting from the burning of wood today?

Dr. SAVITZ. There were 1 million wood-burning stoves that were sold last year. In States such as Georgia, in their industrial sector, they already get 5 percent of their energy needs from the use of wood.

Mr. MCCORMACK. Residential heating?

Dr. SAVITZ. That is industrial use also and being able to use it for stock.

Mr. MCCORMACK. How many quads of energy are we getting from burning wood today in this Nation?

Dr. SAVITZ. Biomass is about 2.1 quads.

Mr. MCCORMACK. What do you think it will be in the year 2000?

Dr. SAVITZ. I think we can triple that without any trouble. We are just really beginning. I would have to check the number, but we have the potential. The technology is fast growing.

Mr. MCCORMACK. Do you think we will do this between now and the year 2000?

Dr. SAVITZ. Yes. It is becoming economical already. The push is happening even without the Government providing a lot of incentives. The price has worked toward this.

Mr. MCCORMACK. What about the environmental and safety aspects?

Dr. SAVITZ. There are furnaces on the market that are airtight and meet all safety requirements. The environmental aspect is something that is being looked at.

Mr. MCCORMACK. Have you any idea how many people have been killed from wood-burning stoves in the East of the United States from fires?

Dr. SAVITZ. There have been newspaper accounts of them. There have also been accounts of people who have died because of using coal in their homes. You have to consider the full environmental implications.

These stoves can be used by the industrial sector where there is major potential. That is being looked at. You are able to concentrate it. It also can be used for small generating facilities.

Mr. MCCORMACK. Do you suppose you could encourage Secretary Duncan to come up with the figures that we have requested?

Dr. SAVITZ. Yes. I have made a note to fulfill his promise.

Mr. MCCORMACK. I think it would help a great deal.

Mr. OTTINGER. Would you yield?

Mr. MCCORMACK. Yes.

Mr. OTTINGER. It seems that the gentleman from Washington and I may differ on this issue. Since you have raised the issue, to get the different points of view on the record, I believe very strongly that in the near term that conservation presents by far the most promising avenue for us to reduce our oil imports. You can decrease this very substantially by doing something significant to alter the automobile fleet and insulate houses and put solar in houses and other buildings, by giving incentives to go to industrial conservation.

The ability to make the main curve come downward is very significant. If we just increase the automobile fleet-miles per gallon by 10 miles per gallon, we would have our import commitment. That would represent 4 million barrels of oil per day in the United States.

The potential in industrial conservation is somewhere around 2 million barrels of oil a day, and the potential in buildings is somewhere in the neighborhood of 2 million barrels a day.

You have to take the conservation figures into account when you consider the renewables. We took our subcommittee down to Brazil a short time ago. Now, Brazil has an aggressive program of planting

fuel crops. It is presently using a 20 percent mixture of alcohol with gasoline, and it is on the road at this time to completing a plan to be off of gasoline altogether by the year 1990.

Now, this country has not yet begun an aggressive program of intentionally planting fuel crops. I think the potential there is very significant, indeed. I do not know off the top of my head what it is, but if we could go to just 10 percent gasohol in this country, I am sure it would represent a very substantial contribution of biomass to our energy supply figure. I am sure it would be in excess of 1 million barrels a day, but I do not have the figures at my fingertips.

So I feel at this time that the gentleman in saying that nuclear and coal are the only real alternatives in the 20 percent contribution, say, over the realistically expected demands by the year 2,000, that it cannot be 20 percent, well, this differs very sharply with my belief as to what the real possibilities are that exist.

Mr. McCormack. I thank the gentleman, and I would like at this time to reassure him that I enthusiastically support all of the conservation programs and the maximum development of all the solar energy technology and all of the technology for converting organics into energy or fuel or energy-intensive materials and also all of the other technologies that we are trying to develop, such as geothermal energy. I very much agree with him.

There are several fundamental assumptions, though, that I think we can all agree on. The President suggested in 1977 that we reduce our growth rate from 3.6 percent per year to about 2 percent per year, thus reducing our total energy consumption in the year 2000 by one-third. I enthusiastically subscribe to this goal. This would take our energy consumption in the year 2000, according to the President, from 84 million barrels of oil a day down to 56 million. It is a reduction of 33 percent.

The problem is providing the 56 million barrels of oil a day for the Nation. This will require essentially doubling our present domestic energy production capacity, while our supplies of natural gas decline. We know this is happening and our present production capacity is about 30 million barrels of oil a day.

To go from 30 up to 56, which is what the President's goal essentially gets down to, and to do so as our supply of petroleum and natural gas declines, and as our imports are almost certainly to decline, leaves us with a requirement of producing energy.

Even if you assume generously, say, 15 million barrels of oil a day from petroleum and natural gas and 2 million barrels of oil a day from hydroelectricity, this gets you to 17, compared to 56. That is 39 million barrels of oil a day which have to come from coal and nuclear and all other sources combined. This is our problem.

Just as it applies to the Nation as a whole, it also applies individually to the States that make up the Nation.

The thing that bothers me is the assumption that we can somehow accomplish this without realistic reliance on our main energy sources. To give you an example, the Department of Energy's solar objectives for the year 1980 suggest by the year 2000 we will have 1.4 quads of energy from wind energy. I submit to you if you go to the largest experimental windmill now being considered, it would take

23,000 of them on line in the year 2000, all operating to produce that portion, which is only a very small portion of the total projected energy production, from what we call "renewables."

It also projects solar-thermal at 5 quads, which is the equivalent to 2.5 million barrels, or every fifth house or residence in the country on solar energy—well, if we had solar cooling there, it would add 2 quads, but the administration projects 5 quads.

Mr. OTTINGER. There is an industrial application.

Mr. MCCORMACK. Yes; I grant you that. It is presumed to be industrial, a good deal of it.

Mr. OTTINGER. I would like to work with the gentleman on his figures. I have come prepared to do that. I think there is going to have to be a mix of all of the energy resources.

The gentleman is quite accurate in saying he has universally supported the efforts in solar and conservation and other renewable resources. He has been aggressive on every front in terms of energy supply and conservation to meet what we agree to be the Nation's most critical problem. I have supported him in his efforts to advance fusion and the base breeder reactor program. I have a feeling we may have a need for this. We both supported the synthetic fuels effort.

One is not to the exclusion of the other, but within that mix, I think it is a mistake to discount the contribution to be made to the Nation by renewable resources.

Mr. MCCORMACK. I could not disagree with you at all. I completely agree with you.

He and I both understand this.

Here is a review of the public survey that was done a short time ago and published in July 1979. It said 45 percent of the people questioned in the survey of 1,000 adults believed we would be providing power to cars from solar energy in 10 years; 67 percent believed that we would meet our energy needs in factories from solar energy in 10 years.

The problem with that, you see, is this. It is a result of overselling a technology. You and I want to do everything we can with solar energy, but the great danger, as I pointed out the first day I brought the first solar energy bill to the House, is in the great hazard of overselling it and letting the people think it will solve our energy problems.

One of the serious problems with this legislation is that it presents on the sort of thinking. It is encouraging the States to think as if they can solve their problems without a realistic reliance on the sources of energy that they must rely on if they are to meet their energy requirements.

Now, this is the reservation that I have. It is as much the attitude as that which shows up in the bill, as it is in any specific provision.

Mr. WOLPE. Will you yield?

Mr. MCCORMACK. Yes.

Mr. WOLPE. I think there is one other additional point that ought to be made as we get into these discussions. Projections tend to become their own self-fulfilling prophecy. I think it is perfectly conceivable that none of the goals that have been identified by the administration with respect to solar energy production or with respect to

energy conservation savings could be realized, if indeed this Congress and the State and local governments and all the other parties that contribute to the energy supply and demand picture in this country are unwilling to adopt those policies and make those decisions that could facilitate the creation of renewable energy alternatives and facilitate the State energy savings to be achieved through conservation.

I mention that because what happens is depending on one's bias at this time as to where we ought to be putting greater or less emphasis upon real energy resources, we tend to use the projections to justify whether a given subsidy or program is justifiable. If one feels that there has been an exaggerated emphasis on a potential of solar energy, then one takes the posture of opposing the creation of programs that can realize those savings in the energy supply that has been projected for that particular energy resource.

We create our own self-fulfilling prophecy. I think if EMPA is diluted sufficiently, then we will have much greater difficulty in achieving our real energy resource objectives. I think, by the same measure, if we were to remove the subsidies that are applied to nuclear energy, that nuclear energy would contribute less to our energy mix than it is today.

I think the real question we need to try to sort out in our own mind is how can we displace petroleum most quickly and at the lowest cost both socially and economically and environmentally to this country. I think if we applied that criterion that we could begin to try to sort out the mix of subsidies that are being studied presently and have created their own self-fulfilling prophecies in terms of which energy sources are, indeed, contributing to the Nation's energy supply.

Thank you.

Mr. McCormack. It was I who wrote the original legislation, the 25-percent tax credits for solar energy and conservation. That was 4 or 5 years ago. I supported that, and I support the action of Congress this year in providing a 40-percent credit for solar energy. This makes it competitive in most cases for space heating and hot water.

I also supported, as the gentleman knows, the extremely aggressive programs for photovoltaic energy. I originated other development programs and I support them very strongly.

There is a difference between supporting them and making them go, and pretending they are going to solve our problems. One has to use his head on both ends of the situation. And my concern with this legislation is the apparent assumption that the planning should not be around mainline sources but around a secondary source or sources. Regardless of the political sex appeal, sooner or later one must come to grips with reality.

Now, this is the goal that we have to have in this kind of legislation.

Mr. Wolpe. I appreciate the chairman's support that he has personally submitted in the form of authorship and the support for the very important conservation of the energy initiatives. I recognize that fully, and I applaud those initiatives.

Mr. McCormack. Thank you.

Mr. Wolpe. My concern is, nonetheless, that it turns out that the pattern of subsidies that the Government has collectively extended

over the many years, let us say the last 25 or 30 years, to the nuclear industry, for example, is quite substantially different from that which has been, in fact, extended to the conservation and renewable energy resources. The effort made at this point, as I understand it, both in this legislation and related legislation is to try to find a way of moving us in the direction of realizing the full potential of conservation and renewable energy resources, recognizing full well that we are not talking about either or all or noting kinds of alternatives in these debates.

We are trying to back away from the ideological focus and the emotional nature of the debate and trying to realistically identify policies that can make a real difference. I think this legislation is a move in that direction.

Thank you.

Mr. McCORMACK. Go ahead, Mr. Ottinger.

Mr. OTTINGER. The other thing I would like to say is this. Now, in the near term, I think the gentleman would agree that you can bring conservation on line quicker—to have the States and local government move in this area, in which they have done relatively little in the past, this will have a quicker payoff.

I agree with the gentleman that that should not be the exclusion in what they described as the mainline resources. That would be the coal and the nuclear options which at the present time and in the foreseeable future will have to make a substantial contribution in meeting our energy needs.

Mr. McCORMACK. I certainly agree with the gentleman, especially with respect to the need for conservation and that more efficient automobiles will make a great difference.

Dr. SAVITZ. I would like to reaffirm that this legislation does not exclude the other kinds of options. We try to emphasize a decentralized approach to planning at the State and local level, and to encourage these governments, and to look at all the options needed for supply and demand. EMPA does highlight the renewable aspect in particular because States and local governments are in a unique position to remove some of the barriers, such as the financing restrictions and the code and zoning requirements, to help fulfill national policies.

Mr. McCORMACK. I have one more question.

Is there any provision for regional compacts in planning? Does the bill provide for this? It seems it would be extraordinarily beneficial.

Let me say that the work we are doing with the Northwest regional power bill right now sharply points to the need for regional planning. Any real planning at the State level, it seems to me, would have to extend over an entire region.

Dr. SAVITZ. We have a regional council with a jurisdictional unit that under State law can be interstate as a concept to formulate plans and policies.

Mr. McCORMACK. Would it be helpful to encourage the development of the regional compact for planning under this legislation?

Dr. SAVITZ. I think it is an important part because we are working from the bottom up to get the local governments and the State governments and regional groups to work together, and then do it nationally.

Mr. McCORMACK. You recognize the compact as a legal entity?

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Dr. SAVITZ. In some regions of the country it is; in some it is not.

Mr. MCCORMACK. I raised this point because of the experience we are having in the West.

I have no further questions.

Have you any questions?

Mr. OTTINGER. No.

Mr. WOLPE. No.

Mr. ROYER. No further questions.

Mr. MCCORMACK. We will undoubtedly be talking with you about other aspects of this legislation. I understand there is a new administration version, and there is a version which has been worked on by the committee chaired by the gentleman from New York. There is much work to be done.

I do not think anyone on the committee would object and I am sure everyone on the committee would support the concept of partnership planning. I think the only question is: How do we write the legislation?

I will undoubtedly be talking to you again in the future.

Dr. SAVITZ. We would be happy to work with you to get legislation drafted in a way to accomplish this partnership.

Mr. MCCORMACK. I would appreciate it if you could think about some of the questions that were raised this morning.

Dr. SAVITZ. We will.

Mr. MCCORMACK. Thank you very much.

Dr. SAVITZ. Thank you.

Mr. MCCORMACK. We will now hear from our next witness. I will call upon Mr. Paul C. Greiner, the vice president of customer relations, Edison Electric Institute.

We want to express our appreciation to you for coming on short notice. You may proceed as you wish.

STATEMENT OF PAUL C. GREINER, EDISON ELECTRIC INSTITUTE

Mr. GREINER. Thank you, Mr. Chairman and members of the committee.

My name is Paul C. Greiner. I am vice president of customer relations, conservation and energy management, for the Edison Electric Institute.

The Edison Electric Institute, EEI, is the association of the Nation's investor-owned electric utilities. Its members serve 99.6 percent of the customers reached by the investor-owned segment of the industry. They generate more than 77 percent of all the electricity in the country and serve more than 77 percent of all ultimate customers of electricity.

My comments will be short because we had a short time to prepare them.

H.R. 4328 as written would amend the Energy Policy and Conservation Act to provide assistance to States and to political subdivisions within States to promote national energy objectives. On the surface, this sounds like a very amiable objective, but let's examine some of the provisions in light of other legislation and existing requirements.

There are many provisions of the bill which would duplicate existing legislation. For example, PURPA has already required the State regulatory commissions to examine the efficacy of special rates to encourage the development of renewable resources. It seems redundant

that H.R. 4382 would now provide Federal funding for advocacy that has already been studied by the States.

We question the advisability of providing Federal funding in areas which traditionally have been a local or State prerogative. An example is in the language contained in section 357(b)(2), which provides for Federal funding of intervention in electric utility regulatory proceedings. We view this as action which will only delay the speedy due process of rate relief.

We are concerned that the Federal Government would provide funding for intervenors in rate cases for which the State regulatory nor consumers nor the utility providing service within a State has any input.

We are also concerned that the legislation would provide funding which would potentially eliminate industry participation in the planning process. The planning and reporting requirements envisioned by the bill seem inordinately redundant and would appear to vastly increase the bureaucracy in order to fulfill the recordkeeping requirements.

One portion of the bill would provide funding for States to do planning and reporting in the RCS program. Most States have already completed their planning and must submit their plans to DOE by June 4, 1980. Therefore, it seems redundant to provide planning funding for a program which is virtually in place.

It seems ill-advised for H.R. 4382 to require implementation of the BEPS program as a condition precedent for Federal funding even before DOE has finalized the requirements of the program. Furthermore, in its present form, BEPS is inconsistent with the national energy objective which is to decrease our reliance on imported fuels and to maximize our use of our indigenous natural resources. Therefore, we believe that this requirement should definitely be deleted.

These are some of the serious areas of concern we see with H.R. 4382.

I would remind this subcommittee that the electric utility industry, through EEI, has developed the first national energy conservation program we call NEW, or national energy watch. More than 160 utilities are members of NEW and subscribe to the objectives, which are:

At the national level, to help reduce the drain on the fossil fuels in short supply;

At the utility level, to help reduce the requirement for new and costly generating facilities;

At the homeowner level, to help keep the homeowner's monthly energy bills as low as possible.

In addition, electric utilities have been working diligently with State authorities developing energy programs, particularly with the RCS program, preparing State energy plans.

In conclusion, we view the mandating of the option of State intervention in utility regulatory proceedings and the use of Federal funds for this purpose particularly objectionable and the requirements for implementation of the BEPS program as a condition precedent for Federal funding as counterproductive to our national energy objectives.

I thank you, Mr. Chairman. At this time I would be happy to answer any questions you might have.

[The prepared statement of Mr. Greiner follows:]

Statement of Paul C. Greiner, Vice President
Customer Relations, Conservation and Energy Management Division
Edison Electric Institute
before the
Subcommittee on Energy Research and Production
of
House Committee on Science and Technology
on
The Energy Management Partnership Act of 1979
May 13, 1980

My name is Paul C. Greiner. I am Vice President of Customer Relations, Conservation and Energy Management for the Edison Electric Institute.

The Edison Electric Institute -- EEI -- is the association of the nation's investor-owned electric utilities. Its members serve 99.6 percent of the customers reached by the investor-owned segment of the industry. They generate more than 77 percent of all the electricity in the country and serve more than 77 percent of all ultimate customers of electricity.

H.R. 4328 as written would amend the Energy Policy and Conservation Act to provide assistance to states and to political subdivision within states to promote national energy objectives. On the surface this sounds like a very amiable objective, but let's examine some of the provisions in light of other legislation and existing requirements. There are many provisions of the bill which would duplicate existing legislation, for example:

- PURPA has already required the state regulatory commissions to examine the efficacy of special rates to encourage the development of renewable resources. It seems redundant that H.R. 4382 would now provide federal funding for advocacy that has already been studied by the states.

- We question the advisability of providing federal funding in areas which traditionally have been a local or state prerogative. An example is in the language contained in Section 357 (b) (2) which provides for federal funding of intervention in electrical utility regulatory proceedings. We view this as action which will only delay the speedy due process of rate relief. We are concerned that the Federal Government would provide funding for intervenors in rate cases for which the state regulatory authority nor consumers nor the utility providing service within a state has any input.

- We are also concerned that the legislation would provide funding which would potentially eliminate industry participation in the planning process. The planning and reporting requirements envisioned by the bill seem inordinately redundant and would appear to vastly increase the bureaucracy in order to fulfill the recordkeeping requirements. One portion of the bill would provide funding for states to do planning and reporting in the RCS Program. Most states have already completed their planning and must submit their plans to DOE by June 4, 1980. Therefore, it seems redundant to provide planning funding for a program which is virtually in place.

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I would remind this Subcommittee that the electric utility industry, through EEI, has developed the first national energy conservation program we call N.E.W. (National Energy Watch). More than 160 utilities are members of N.E.W. and subscribe to the objectives which are:

At the national level: To help reduce the drain on the fossil fuels in short supply.

At the utility level: To help reduce the requirement for new and costly generating facilities.

At the homeowner level: To help keep the homeowner's monthly energy bills as low as possible.

In addition, electric utilities have been working diligently with state authorities developing energy programs, particularly with the ECS Program, preparing state energy plans.

In conclusion, we view the mandating of the option of state intervention in utility regulatory proceedings and the use of federal funds for this purpose particularly objectionable and the requirements for implementation of the BEPS program as a condition precedent for federal funding as counterproductive to our national energy objective.

Mr. McCormack. Thank you very much, Mr. Greiner.

I would like to pursue for a moment the topic of energy planning. How much energy is going to be provided in the year 2000 by electric utilities and how much by gas utilities? Today about 20 percent of our energy is used in residences for heating and cooling and hot water and so on.

Mr. Greiner. Yes.

Mr. McCormack. Probably, a very high percentage of residential heating and cooling is provided by gas or electricity. The rest would be oil, wood and coal.

I am curious to know what percent of the new energy that is consumed in any given area of the country do you think will be provided by regulated utilities, such as electric and gas utilities. Have you any feel for this?

Mr. Greiner. We have just conducted a potential growth study for the year 2000. In this study, we are trying to project what kind of mix this would have, say, between now and the year 2000. This is very much dependent upon the growth rate that we see for the electric industry, in particular.

In the past, before the year 1973, the electric utility industry was growing roughly at 7 percent per year. Between the years 1973 and 1979, we grew at the rate roughly of an average of 3.5 percent. We see that the average for the future in our projection, which has just been completed—we see roughly 4.1 to 4.8 percent, which would be the electric portion of the growth rate.

We project as far as the electric industry is concerned—well, we will take a rather major share of the new sources of energy. I would remind the subcommittee, Mr. Chairman, that energy can be supplied to the electric utility industry from coal or hydro or wood products or even solar.

I would also remind you that the electric utility industry is probably the second largest supporter of solar energy, that is, next to the Federal Government. We are doing this through demonstration projects which utilities are involved in. They are doing this, Mr. Chairman, so that they can advise their customers as to where solar energy does fit.

This is the real world, as you so well put it.

Mr. McCormack. Now, at 4 percent, you would be doubling in 17 or 18 years.

Mr. Greiner. Yes.

Mr. McCormack. Of the energy produced in this country, what percentage is electric energy production?

Mr. Greiner. As I remember, it is roughly 27 percent. We are projecting by the year 2000 that this may approach 30 percent or even higher than that, probably 35.

Mr. McCormack. Today we are burning oil to produce electricity in New York, the New England area, and in California. I understand that in California 77 percent of the electricity is generated from oil.

Mr. Greiner. That is probably correct. In California, in Florida, and on the east coast they are still using oil.

I would also remind you that a major portion of that oil is residual oil. As they say in Texas, it is the bottom of the barrel after the cracking process.

Mr. McCORMACK. I understand Indonesian oil is imported for the west coast.

Mr. GREINER. Yes, but the major portion of the total electric utility industry oil use is residual. It is roughly 87 percent.

Mr. McCORMACK. That applies in New England and New York also; their burning residual oil?

Mr. GREINER. Yes.

Mr. McCORMACK. Do you consider this as an acceptable mix? Is it fair to say that you might as well burn residual oil up and make electricity of it?

Mr. GREINER. There is very little else you can do with residual except putting it on streets and highways.

Mr. McCORMACK. What percent of the oil that is refined in this country is residual or comes out as residual, or what part of the barrel?

Mr. GREINER. This depends on the cracking process. They can adjust this somewhat. Usually in the cracking process, roughly 4 percent is the bottom of the barrel.

Mr. McCORMACK. We are consuming about 20 million barrels of oil a day total in this country, and 4 percent of that—or about 800,000 barrels of oil a day is just residual oil?

Mr. GREINER. Yes.

Mr. McCORMACK. This could be used to burn to generate electricity without really doing any fundamental harm to our imports and without creating any additional imports or additional dependence; is that correct?

Mr. GREINER. Yes. Some residual oil is imported. It is the bottom of the barrel of the cracking process in other parts of the world.

Mr. McCORMACK. Are there pollution standards in some States or some areas that would prevent the use of residual oil?

Mr. GREINER. As far as residual oil, I think there is. I believe California has some problem with that in certain parts of California. I am not familiar with all of it.

Mr. McCORMACK. It would depend on the sulfur content?

Mr. GREINER. Yes, of the oil or the coal.

Mr. McCORMACK. I have another question. A number of years ago, we had testimony from one of the insulation companies about the percent of homes that are not adequately insulated and those that could not be insulated effectively under any conditions. Have you any figures on this? How much do you expect we can accomplish?

Mr. GREINER. We do not actually have figures on it, but as a pretty good guess, there are certain manufacturers of insulation that have done some studies on this. I think there are some available data that we could supply to you.

As a guess, I would say that at least 20 percent of the homes presently out there are very poorly insulated. There are probably another 20 percent on top of that that are less than adequately insulated.

Now, past that point, there are probably another 60 percent—and that leaves a total of the 100 that could have additional insulation put on them. The first 20 percent have very little, if no, insulation at all. These, I think, are the ones we ought to concentrate on first because the payback on those would be far greater.

Of the next 20 percent there may be additional capping of insulation in the ceilings and probably the sidewalls. Now, the other 60 percent, of the major portions of those, I remind you they are probably electrically heated. This is because we started in the 1950's to insulate homes far better with other types of fuel.

Mr. McCormack. Do you think the all-electric homes generically are adequately insulated, or are they just well insulated and could stand some more?

Mr. Greiner. I would say in most areas of the country that they are well insulated. This is with some exceptions. The exceptions would be on the west coast, the Pacific Northwest, where back in the 1950's and 1960's they were installing electric heating in homes because the cost of electric energy was roughly 8 mils. They were not insulating as well as we were in Indiana.

I was with a utility in Indiana, and there was also the TVA land. Back in those days they were insulating far less than we did in Indiana. This was because of the cost. We should go back and fix those. In those areas of the country they are, sir.

Mr. McCormack. On page 3 you said in its present form BEPS [Building Energy Performance Standards] is inconsistent with the national energy objective to decrease our reliance on imported fuels and so on. Would you care to expand on that?

Mr. Greiner. Yes. BEPS sets up something for some 78 various types of climatological areas of the country and some 18 different building types. This is one that the designer is designing for new construction. Now, depending on which fuel the designer is using—for instance, if he is using natural gas, the multiplier for the energy that he has designed into the building is one. This is a weighting factor that DOE has put into this.

If it is oil that he is using for the source energy, the multiplier is 1.22. If it is electricity for the residential sector, it is 2.79.

Now, certainly it is very easy to understand that for electricity they make approximately a three-to-one differential regardless of the source of the electricity, whether it comes from coal, nuclear, hydro, or whatever. I think that is inconsistent with our national energy policy.

Mr. McCormack. Thank you.

Mr. Greiner. Yes, sir.

Mr. McCormack. If you were to make a recommendation with respect to this legislation, would you reocmmend that it be amended and be enacted, or would you recommend that it not be enacted at this time? What recommendation would you give?

I am basing my question on your criticism of the legislation. I am asking now for a positive recommendation to this committee.

Mr. Greiner. Mr. Chairman, in reading through the legislation, as proposed, it seems like it pancakes on top of numerous, other already existing legislation. Congressman Ottinger said in his statement earlier that it is a rather complex—I think that is the word he used—that it is a rather complex piece of legislation.

I am very much concerned, Mr. Chairman, that there are some portions of it that I think would probably stand up, but I think, Mr. Chairman, it needs to go back and be looked at again in light of the numerous other things that are already in place. I think duplication is the biggest problem or concern that we have.

I talked with Dr. Savitz, and we recognize that she is interested in promoting this particular piece of legislation. Our concern, however, is that the duplication probably outweighs the benefits that are in this particular new bill.

Mr. McCormack. Thank you very much.

Have you any questions, Mr. Ottinger?

Mr. Ottinger. Thank you, Mr. Chairman.

I have a number of concerns. In terms of your projections of electric use, historically the electric institutes have estimated the electric energy use far above those of actual experience and far above the estimates made by the Government and other parties. Would you care to give us your projections for the last 5 years in electric energy use?

Mr. Greiner. For the last 5 years?

Mr. Ottinger. Projections that the Edison Electric Institute made during the last 5 years of the projected electric energy contribution to our energy picture.

Mr. Greiner. I do not have them at my fingertips. I know that they were a little higher. The main reason for them being higher is that we would rather be safe than sorry, you might say.

With electric energy, if you do not have the capacity on stream, if you do not have it available, you can run into very serious difficulties, particularly brownouts or blackouts. We are very much concerned with this. We try to make a reasonable projection.

Before 1973 our projections were very close. Between 1973 and this date, many things have happened. They are things that we were not familiar with and that we cannot project. Even the Federal Government could not project what was going to happen during those particular years. So it is very difficult.

We tried to come up with a reasonable approach. I would be happy to supply you with the data. You may already have it.

[The above-referred information to be furnished the committee follows:]

FORECAST SUMMER PEAK LOADS AND ANNUAL KILOWATT-HOUR REQUIREMENTS

Annual increase	Percent increase forecast previous April	
	Summer peak load	Annual kilowatt-hour requirement
1980 over 1979	6.5	4.4
1979 over 1978	7.0	5.5
1978 over 1977	6.2	6.2
1977 over 1976	9.2	7.4
1976 over 1975	9.2	7.6
1975 over 1974	9.1	7.2
1974 over 1973	8.8	7.8
1973 over 1972	10.6	8.7

Mr. Ottinger. You said 3.5 percent growth between 1973 and 1979 as the average?

Mr. Greiner. Yes.

Mr. Ottinger. Do you have the figures for 1978 and 1979?

Mr Greiner. I will supply it.

[The above-referred information to be furnished the committee follows:]

ACTUAL SUMMER PEAK LOADS AND ANNUAL KILOWATT-HOUR REQUIREMENTS

Annual increase	Actual percentage increase	
	Summer peak load	Annual kilowatt-hour requirement
1979 over 1978	0.9	2.2
1978 over 1977	3.0	4.1

Mr. OTTINGER. I believe there was a conference held very recently in which the Chairman of the Tennessee Valley Authority projected for future energy use that there would be no growth, and the contribution that would be made from solar and cogeneration to electric generation—and I want to ask you about that because you did not comment on cogeneration—but that this might well be, or other renewables would be, as great as the contribution of total nuclear.

Mr. GREINER. The numbers you refer to surprise me very much. I would expect they are probably correct, but I am surprised that David Freeman made the statement about no growth in the future.

Mr. OTTINGER. We are going to check this out.

Mr. GREINER. Yes.

Mr. OTTINGER. I was informed by a staff member who was there.

Now, in terms of the utilities, what are the Edison Electric Institute members doing to aggressively pursue a program in insulation of homes by supplying the solar and cogeneration? What are your plans in that regard, assuming S. 932 passes and the prohibition in most of the States is lifted?

Mr. GREINER. As far as insulation of homes, I refer to our national energy watch program in the individual sector. We have a similar program in the commercial and industrial sector. This was put into place even before the RCS program. We were encouraging utilities to get involved with this even before the administration presented it to the Congress.

Mr. MCCORMACK. Would you submit that for the record?

Mr. GREINER. Yes.

[The above-referred information to be furnished the committee follows:]

OPERATING MANUAL AND PROMOTION CATALOG

Edison Electric Institute
~~90 Park Avenue~~
~~New York, New York 10016~~
December, 1977
1111 19th Street, N.W.
Washington, D.C. 20036

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1977

NATIONAL ENERGY WATCH
OPERATING MANUAL AND PROMOTION CATALOG

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NATIONAL ENERGY WATCH

What It Is And What Its Objectives Are

There are three ways to conserve electric energy in the home:

+ By improving the thermal integrity of the structure itself

+ By installing more efficient energy-consuming equipment and appliances

+ By adopting better use habits

The NATIONAL ENERGY WATCH is a program designed to help the American homeowner realize the conservation potential in each of these three areas.

The objectives of the program are these:

+ AT THE NATIONAL LEVEL: To help reduce the drain on the fossil fuels that are in short supply

+ AT THE UTILITY LEVEL: To help reduce the requirement for new and costly generating facilities

+ AT THE HOMEOWNER LEVEL: To help keep the homeowner's monthly energy bills as low as possible

N.E.W. was developed by the Edison Electric Institute for the electric utility industry. It is a voluntary program, which is to say that it was conceived, developed and implemented at the initiative of the industry itself, rather than at the direction of the government.

In appreciation of the fact that many individual utility companies already have conservation programs of their own in operation, N.E.W. was structured as an umbrella under which all such programs can be continued, if desired, with minimum disruption. N.E.W. has certain basic rules that apply to all participating companies. But a feature of the program is the flexibility that has been built into it to accommodate the wide spectrum of utility

operating conditions. The important common denominator for all companies that participate in N.E.W. is the program's stated objectives. To the extent that it can be done without compromising the benefits of a strong national effort, the means by which the objectives are pursued are left to the companies themselves.

ELIGIBILITY

All electric utility companies are eligible to participate in the NATIONAL ENERGY WATCH provided their proposed programs meet the criteria established in the "Program Outline" section of this Manual. This includes straight electric companies, combination companies, cooperatives and municipals.

PROGRAM OUTLINE

The NATIONAL ENERGY WATCH - like a game - has its own "Goals" (separate from its objectives), "Pieces" and "Rules." They are as follows:

The Goal

For each participating company, the goal is to enroll as many homeowners in its service area in N.E.W. as possible.

The Pieces

1. Two sets of thermal insulation guidelines; one for new and one for existing homes.

2. A set of efficiency guidelines for equipment and major appliances.

3. A point system for measuring the effectiveness of the installed insulation, equipment and appliances.

The Rules

1. Each participating company will develop its own guidelines and point systems to meet local needs, but all guidelines and point systems will be patterned after the models shown in Appendices A, B, C and D, attached.

2. Each guideline will have an assigned point value. In the analysis of individual homes, the full point value will be given where there is full compliance with the guideline. Lesser points will be given for fractional compliances.

3. Company-developed guidelines and point systems will be submitted to N.E.W. headquarters for acceptance at the time application is made for company membership in the program (see Appendix "C").

4. Homeowners will qualify for membership in N.E.W. under one of the following conditions:

   A. Owners of <u>new</u> homes will qualify if their homes score at least 80 percent of the total number of possible points for both thermal efficiency and the efficiency of electric equipment and appliances.

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B. Owners of existing homes will qualify if their homes score at least 80 percent of the total number of possible points, or if they improve their original score by at least 20 percent by any means or combination of means. (Note: Every effort should be made to have improvements in existing homes made in critical areas such as wall and ceiling insulation rather than in areas of less importance.)

5. To the end of enrolling as many homeowners as possible, each participating company will actively promote the N.E.W. program within its service area, and in particular, will take the following steps: (Note: Items C, D and E apply only to the owners of existing homes.)

   A. Develop locally appropriate procedures for advising residential customers of the dollar savings that are likely to be realized by incorporating conservation measures that will meet the guidelines established by N.E.W.

   B. Develop locally appropriate procedures for advising residential customers of the estimated costs that are likely to be incurred in incorporating the conservation measures indicated in (A) above.

   C. Offer to assist residential customers in arranging loans to cover the costs of installing the conservation measures. (See Appendix "E" attached.)

   D. Offer to assist residential customers in arranging to have the suggested measures installed. (See Appendix "F" attached.)

   E. Distribute to residential customers lists of suppliers and contractors who sell and install residential energy conservation measures, and lists of banks and other private lending institutions which offer loans for the purchase and installation of conservation measures. Such lists to be prepared by State Governors or their designees.

6. All homeowners whose homes qualify them for membership in N.E.W. will be awarded a Certificate of Membership by the cognizant utility company, and will be given such additional recognition as the company may deem appropriate.

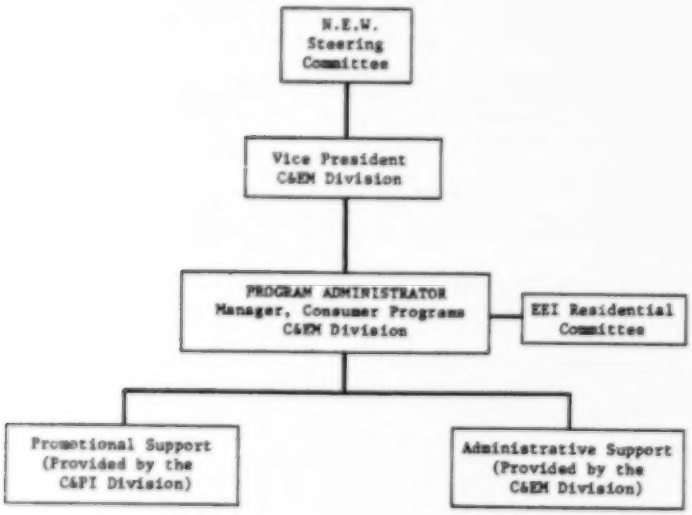
7. In the case of existing homes, membership in N.E.W. will be awarded on the basis of improvements that were completed after April 20, 1977.

8. Use of the program's graphic symbol will be in accordance with the provisions of Appendix "H" of this Manual.

ORGANIZATION

(National)

N.E.W. will not be a separately organized activity within EEI. It will be an integrated staff activity, but will be administered functionally, under the EEI President, in accordance with the following organizational structure.



RESPONSIBILITIES

(EEI)

I. N.E.W. STEERING COMMITTEE:

Members of the N.E.W. Steering Committee will be appointed by the Chairman of the Board of Directors of EEI from among members of the Energy Management Committee and the Public Information Committee. There will be 12 members on the Committee; six from the Energy Management Committee, and six from the Public Information Committee.

Appointments will be made on a rotating basis to assure continuity. Specific Committee responsibilities will include the following:

1. Exercising overall policy supervision of the program.
2. Approving any proposed changes in the Objectives, Rules, Organization, Responsibilities or Procedures of the program as established in this manual.
3. Ruling on any disputed application for company membership in the program.
4. Reviewing and giving Steering Committee approval to proposed annual programs and budgets before such proposals are incorporated in EEI's general annual budget request.

II. VICE PRESIDENT, CONSERVATION & ENERGY MANAGEMENT DIVISION:

The Vice President, C&EM Division, will be the senior staff officer, under the EEI President, in charge of N.E.W. administration, and will be responsible for the following:

1. Maintaining a continuing overview of all aspects of the program to assure its efficient and productive operation.
2. Submitting, through channels, any proposed changes in the Objectives, Rules, Organization, Responsibilities or Procedures as established in this Manual to the N.E.W. Steering Committee for review and decision.

3. Reviewing and giving vice presidential approval to proposed annual programs and budgets, and thereafter, submitting such proposals, through channels, to the Steering Committee for review and approval before they are incorporated in EEI's general annual budget request.

4. Keeping the N.E.W. Steering Committee and the President of EEI advised in a timely fashion of all major program activities.

5. Maintaining continuing liaison with senior representatives of the program's trade allies.

6. Maintaining continuing liaison with appropriate governmental agencies to assure their familiarity with the program's progress.

III. NEW PROGRAM ADMINISTRATOR (Manager, Consumer Programs, C&EM Division):

The N.E.W. Program Administrator will work in close cooperation with the EEI Residential Committee, and will keep the Committee informed in a timely manner of all significant program activities and developments. He will act to process all Committee suggestions as expeditiously as possible. Administratively, he will report to the Vice President, C&EM Division, and will be responsible to him for the following:

1. Developing and administering imaginative, national programs designed to stimulate maximum homeowner participation in N.E.W.; such programs to include advertising, publicity, special events, exhibits, etc. as funds permit.

2. Developing a continuous flow of materials to participating member companies to assist them in their local promotional activities; such materials to include films, film clips, locally oriented publicity releases, booklets, bill-stuffers, etc. as funds permit.

3. Serving as official liaison between EEI and participating companies.

4. Maintaining continuing liaison with staff representatives of the program's official "trade allies" to assure their appropriate involvement in program activities.

5. Developing cooperative promotion programs not only with trade allies, but also with other reputable and interested organizations, industries and/or corporations.

6. Exercising administrative supervision of the program, particularly with regard to such things as:

   a. The processing of company applications for membership as outlined in the "Procedures" section of this Manual.

   b. The maintenance of semi-annual company reports.

   c. Developing and maintaining appropriate stocks of administrative forms and supplies such as company membership applications, company membership certificates, homeowner membership decals, homeowners membership certificates, seals, etc.

7. Keeping participating member companies advised as far in advance as possible of planned national promotional activitities for N.E.W. so that the individual companies can plan local activities accordingly.

8. Keeping the Vice President, C&EM, advised in a timely manner of all significant program activities of major importance.

9. Preparing annual budgets for the program and submitting them to the Vice President, C&EM, for necessary approvals.

IV. PROMOTIONAL SUPPORT OFFICE (Staffed by the C&PI Division):

For purposes of this program, the Promotional Support Manager (to be designated by the Senior Vice President, C&PI) will report functionally to the N.E.W. Program Administrator and will be responsible to him for the following:

1. Assisting the Program Administrator in fulfilling the responsibilities set forth in Paragraph III, 1, 2 and 5 above.

2. Preparing suggested annual Promotional Support budgets and submitting them to the Program Administrator for necessary approval.

V. ADMINISTRATIVE SUPPORT OFFICE (Staffed by the C&EM Division):

For purposes of this program, the Administrative Support Manager (to be designated by the Vice President, C&EM) will report functionally to the N.E.W. Program Administrator, and will be responsible to him for the following:

1. Assisting the Program Administrator in fulfilling the responsibilities set forth in Paragraph III, 6 and 9 above.

2. Preparing annual Administrative Support budgets and submitting them to the Program Administrator for necessary approvals.

VI. EEI RESIDENTIAL COMMITTEE:

The EEI Residential Committee will be responsible for the following:

1. Maintaining a continuing operational overview of the program to assure its effective administration.

2. Suggesting (to the Program Administrator) changes the Committee feels are appropriate in the program's Objectives, Rules, Organization, Responsibilities or Procedures -- such changes to be submitted through channels to the Steering Committee for review and decision.

3. Proposing (to the Program Administrator) changes, additions or deletions the Committee feels are appropriate in the functional activities of the program.

RESPONSIBILITIES

(Participating Companies)

Participating company responsibilities will include the following:

1. Developing locally appropriate guidelines and point systems as indicated in the "Program Outline" section of this Manual.

2. Developing and administering locally appropriate program activities.

3. Developing locally appropriate administrative policies and procedures in consonance with those of the national program.

4. Maintaining local liaison with participating trade allies and appropriate civic groups and involving them in program activities to the fullest extent possible.

5. Submitting semi-annual N.E.W. activity reports to the N.E.W. Program Administrator.

6. Advising the N.E.W. Program Administrator of any changes in the company-developed guidelines and point systems that were submitted with the company's original application for membership.

7. Advising the Program Administrator of any change in the company point of contract for the N.E.W. program.

8. Advising the Program Administrator of company election to withdraw from the program.

PROCEDURES

I. APPLYING FOR COMPANY MEMBERSHIP IN N.E.W.:

A sample of the official application for company membership in N.E.W. is shown in Appendix "G" of this Manual. Copies of this form may be obtained from the N.E.W. Program Administrator at EEI in New York (90 Park Avenue, New York, New York 10016), or application may be made simply by submitting the information requested in the application to the Program Administrator for processing.

II. PROCESSING COMPANY MEMBERSHIP APPLICATIONS:

Upon receipt, applications for company membership in N.E.W. will be processed by the Program Administrator as expeditiously as possible. Any questions regarding applications will be referred by him to the applying company's official N.E.W. representative for clarification. In the event such questions cannot be resolved in this way, the matter will be referred through channels to the N.E.W. Steering Committee for resolution.

Upon acceptance of the application, the Program Administrator will send the following materials to the member company:

1. A certificate of company membership in the program.
2. Two copies of the Operating Manual and Promotion Catalog.

III. PROGRAM IMPLEMENTATION

A. Local programs may be implemented by participating companies at any time after membership applications have been accepted. The scope and content of such programs will be determined by the companies themselves, so long as there is general compliance with the provisions of this Manual.

B. Semi-annual activity reports are requested. Such reports should be submitted to the Program Administrator within 30 days after the close of the report period. Such reports should include the following:

1. Name of reporting company.
2. Period covered.
3. Number of new homes certified for N.E.W. membership during report period.
4. Number of existing homes certified for N.E.W. membership during report period.
5. Summary of any major promotional activities during report period - advertising, special events, etc.

C. Any change in the participating company's guidelines and point system as delineated in its original application for membership will be reported promptly to the Program Administrator.

D. In the event a participating company elects to withdraw from the program, the Program Administrator will be advised as soon as possible.

DISCUSSION

The following are items of general interest to be considered in organizing and administering local NATIONAL ENERGY WATCH programs:

+ Remember that the question of whether the industry's conservation efforts will remain voluntary or become mandated may depend significantly on the government's perception of the substantive value of such efforts. If you haven't already done so, read President's Carter proposed National Energy Act. Also read some of the more important pending congressional bills (copies available from N.E.W. Program Director, EEI, New York). Keep in mind that to be "acceptable" to the government, local voluntary programs should address themselves to the major provisions in these documents.

+ Remember in administering your program that the emphasis must be on getting added thermal treatment in as many homes as possible. Homeowner membership in N.E.W. should not be withheld, for example, because the home is one R factor short of the established guideline.

+ Remember what is said in the Introduction to this Manual: "Many companies have been conducting residential energy conservation programs of their own for some time. For this reason, N.E.W. has been structured as an umbrella under which all such programs can be continued, if desired, with minimum disruption." Some companies may choose to discontinue their present conservation programs immediately, in favor of N.E.W. Others may phase out their local programs over a transitional period of time. And others may decide to keep the identification of their local programs indefinitely, but promote them (for example) as "an activity of the NATIONAL ENERGY WATCH program." All of these options are acceptable to N.E.W.

+ Get your state regulatory commission involved early. Generally, it can be expected that commissions will be sympathetic with the ojbectives of N.E.W., and no problems should develop. But it should be remembered that N.E.W. activities probably will involve considerable expenditures for advertising, manpower, promotion, etc., and it is important that these expenses be recognized by the commission as allowable expense in subsequent rate negotiations.

+ Never lose control of the program, but think about getting as many "directly interested" organizational entities in to help as possible. Think of forming an organizational nucleus for the program that would include representatives from the following:

a. Other energy suppliers (gas, fuel oil, coal, propane, etc.)
b. The financial institutions that are involved in your homeowner's loan plan.
c. The material suppliers, contractors and trade allies who are similarly involved.
d. Local governments.
e. Homebuilders associations and related organizations.

+ Get the local organizational nucleus to work with you in the development of specific projects. Ask them to contribute financially, too. Then think about enlisting the active support of other groups in the implementation of those projects; groups such as the following:

a. Schools (including educational extension offices).
b. Service clubs and churches.
c. Special interest groups (consumer groups, environmentalists, do-it-yourself groups, etc).

+ But be sure you have something in mind for these groups to do before you approach them. Get them to stage special promotional events; get them to help in soliciting homeowner membership in N.E.W. (especially within their own organizations).

+ Have a separate budget for N.E.W. It may be useful in getting the cost of the program accepted by your commission as an allowable expense. Include administrative expenses (such as manpower) as well as such regular items as advertising, promotion, special events, etc.

+ Think membership. Having as many members in N.E.W. as possible is the only way to achieve the program's three stated objectives. And it's one of the best ways to keep our efforts voluntary.

OPERATING MANUAL APPENDICES

Appendix "A" - Thermal Insulation Guidelines for New Homes

Appendix "B" - Thermal Insulation Guidelines for Existing Homes

Appendix "C" - Guidelines for Electric Equipment and Appliances for New and Existing Homes

Appendix "D" - Sample Point System for N.E.W. Certification

Appendix "E" - Typical Financial Assistance Plans

Appendix "F" - Typical Remodeling Assistance Plans

Appendix "G" - Company Membership Application Form

Appendix "H" - Official Program Nomenclature and Graphic Symbol

Appendix "I" - Renderings of Official Homeowner Membership Certificates and Window Decals

NOTE

Appendices "A" and "B" (following) are thermal insulation guidelines for new and existing homes, respectively. They are intended solely as a point of departure to help local utility companies develop similar guidelines of their own. They are not standards or requirements that must be met for company participation in the N.E.W. program. From a national point of view, they set forth desirable and justifiable objectives which, if obtained, will repay the individual homeowner many-fold for his investment in terms of added comfort, lowered operating costs, increased property value and the satisfaction that comes from the knowledge that he is contributing to the solution of a serious national problem. N.E.W. authorizes and encourages variations in these guidelines to accommodate local conditions.

APPENDIX "A"

THERMAL INSULATION GUIDELINES FOR NEW HOMES

Guideline No. 1

Thermal insulation resistance values for new residential units should be as follows:

Units with heating systems only	Ceilings[1]	Walls	Floors over vented crawl spaces	Floors over unheated basements	Floors & walls between separated heated units
Over 7000 deg days	38	18	19	19	11
5500-7000 "	30	18	19	19	11
3500-5500 "	30	18	19	11	11
Under 3500 "	19	11	19	11	11
Units with both heating & cooling	30	18	19	11	11

(1) Under some conditions, R-38 ceiling insulation, rather than the R-value listed, may be advisable.

(2) Including walls between heated and unheated portions.

Guideline No. 2

The edges of concrete slabs on grade should be insulated (1) to their full depth plus 24 inches horizontally under the slab, or (2) 24 inches vertically down from the top of the slab. Thermal resistance values shall be as follows:

Heating Degree Days/Year	Thermal Resistance
Over 8000	8
4500-8000	6
1500-4500	4
Under 1500	0

Guideline No. 3

Double glazed windows, insulated doors with R-values of 3, or storm doors, should be incorporated where heating degree days exceed 3500 per year, or where a dwelling is both heated and cooled. Triple-glazing should be used where annual degree days exceed 7000.

Guideline No. 4

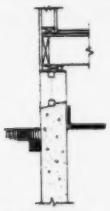
Infiltration should be minimized by the incorporation of weather stripping, caulking, sill-sealing and positive-closing dampers.

Guideline No. 5

Attic and crawl space vents should meet the minimum requirements shown below. Exhaust fans should be installed in kitchens and bathrooms.

Crawl Space Ventilation

With moisture seal



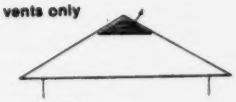
- At least two vents required
- 1 sq. ft. of vent for each 1,500 sq. ft. of crawl space

No moisture seal

- At least four vents required
- 1 sq. ft. of vent for each 150 sq. ft. of crawl space

Attic Ventilation

Gable vents only



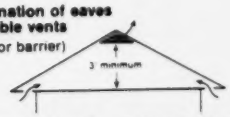
- with vapor barrier

  1 sq. ft. inlet and 1 sq. ft. outlet for each 600 sq. ft. of ceiling area.

- no vapor barrier

  1 sq. ft. inlet and 1 sq. ft. outlet for each 300 sq. ft. of ceiling area.

Combination of eaves and gable vents
(no vapor barrier)



1 sq. ft. inlet and 1 sq. ft. outlet for each 600 sq. ft. of ceiling area, with at least half of the vent area at the top of the gables and the balance at the eaves

Ridge vent

...or continuous ridge vent may be used instead of gable louvers.

Guideline No. 6

All ductwork shall be in conditioned space, or should be insulated to at least a value of R-7.

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APPENDIX "B"

THERMAL INSULATION GUIDELINES FOR EXISTING HOMES*

Guideline No. 1

Thermal insulation resistance values for existing residential units should be as follows:

Units with heating systems only	Ceilings	Walls[1]	Floors over vented crawl spaces	Floors over unheated basements	Floors & walls between separated heated units
Over 5500 deg days	30	11	19	19	11
3500-5500 "	30	11	19	11	11
Under 3500 "	19	11	19	11	11
Units with both heating & cooling					
All climates	30	11	19	11	11

(1) Where construction permits.

Guideline No. 2

Double-glazed windows, insulated doors with R-value of 3 or storm doors should be incorporated where heating degree days exceed 3500 per year, or where a dwelling is both heated and cooled. Triple-glazing should be used where annual degree days exceed 7000.

Guideline No. 3

Infiltration should be minimized by the incorporation of weather stripping, caulking, sill-sealing and positive-closing dampers.

Guideline No. 4

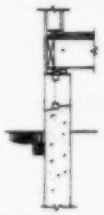
Attic and crawl space vents should meet the minimum requirements shown below. Exhaust fans should be installed in kitchens and bathrooms.

Crawl Space Ventilation

With moisture seal

- At least two vents required
- 1 sq. ft. of vent for each 1,500 sq. ft. of crawl space

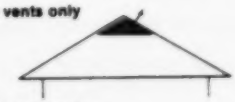
No moisture seal



- At least four vents required
- 1 sq. ft. of vent for each 150 sq. ft. of crawl space

Attic Ventilation

Gable vents only



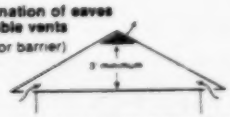
- with vapor barrier

  1 sq. ft. inlet and 1 sq. ft. outlet for each 800 sq. ft. of ceiling area
- no vapor barrier

  1 sq. ft. inlet and 1 sq. ft. outlet for each 300 sq. ft. of ceiling area

Combination of eaves and gable vents

(no vapor barrier)



1 sq. ft. inlet and 1 sq. ft. outlet for each 600 sq. ft. of ceiling area, with at least half of the vent area at the top of the gables and the balance at the eaves

Ridge vent

...or continuous ridge vent may be used instead of gable louvers.

Guideline No. 5

All ductwork should be in conditioned space, or should be insulated to at least a value of R-7.

Note: *There are many variances in the construction details of existing homes. There is thus the possibility that recommended guidelines cannot be met in all cases. "Trade-offs" are therefore acceptable so long as total thermal objectives are attained.

APPENDIX "C"

GUIDELINES FOR ELECTRIC EQUIPMENT AND APPLIANCES FOR NEW AND EXISTING HOMES

Guideline No. 1

Heat pumps should be carefully considered for all homes.

Central systems incorporating air conditioning should have a minimum cooling energy efficiency ratio of 7.0.

Systems other than the above should incorporate room-by-room controls.

"Solar assist" equipment should be incorporated when it is economically feasible.

Guideline No. 2

Appropriate controls, including thermostats that are compatible with efficient system operation, should be installed to minimize energy consumption, particularly during periods of reduced or non-use.

Guideline No. 3

Efficiencies for water heaters, ranges and dishwashers should be no lower than target EERs compiled by the Federal Energy Administration (Applicable when target EERs are published by FEA).

APPENDIX "D"

SAMPLE POINT SYSTEM FOR H.E.W. CERTIFICATION*

New Construction..... 80 pts.

Existing Construction..... 80 pts.
(or 1.2x total earned points)

H.E.W. ASSIGNED RATING POINTS	RECOMMENDED R VALUE AND POINTS	EARNED POINTS
Guideline No. 1		
CEILING INSULATION		
R-38.....30 pts. R-30.....26 pts. R-19.....20 pts.	R-30 26 pts.	____
WALL INSULATION	New Construction	
R-18.....22 pts. R-11.....18 pts.	R-18 22 pts.	____
Between separately heated units R-11..... 1 pt.	Existing R-11 18 pts. R-11 1 pt.	____
FLOOR INSULATION		
Over vented crawl spaces R-19..... 6 pts.	R-19 6 pts.	
Over unheated basement R-19..... 6 pts. R-11..... 4 pts.	R-11 4 pts.	____
Between separately heated units R-11..... 1 pt.	R-11 1 pt.	____
Guideline No. 2		
SLAB CONSTRUCTION		
R-8..... 4 pts. R-6..... 3 pts. R-4..... 2 pts.	R-4 2 pts.	____
Guideline No. 3		
WINDOWS AND DOORS	Double Glazed 20 pts.	
Triple Glazed.....24 pts. Double Glazed.....20 pts. Insulated Doors R-3.. 4 pts.	R-3 4 pts.	____
Guideline No. 4		
Weather stripping and Caulking.....13 pts.	13 pts.	____
Guideline No. 5		
Gable Vents with insulation vapor barrier, 1 sq.ft. inlet and 1 sq.ft. outlet for each 600 sq.ft. of ceiling area..... 4 pts.		
(cont'd)		

H.E.W. ASSIGNED RATING POINTS	RECOMMENDED R VALUE AND POINTS	EARNED POINTS
Gable Vents without insulation vapor barrier, 1 sq.ft.inlet and 1 sq.ft. outlet for each 300 sq.ft. of ceiling area..... 4 pts.		
Eave and Gable Vents 1 sq.ft. inlet and 1 sq.ft. outlet for each 600 sq.ft. of ceiling area..... 4 pts.	4 pts.	____
Guideline No. 6		
SPACE CONDITIONING DUCTING		
In conditioned space. 3 pts. In unconditioned space insulated to R-7..... 2 pts.	3 pts.	____
ELECTRIC EQUIPMENT AND APPLIANCES		
HEATING AND COOLING EQUIPMENT		
Guideline No. 1		
Heat Pump.....15 pts. Central Air Conditioning minimum EER of 7.0..... 5 pts. Room by room control (where applicable)... 5 pts. "Solar Assist" equipment.....15 pts.		____
Guideline No. 2		
Energy Efficient controls i.e. night setback thermostat..... 5 pts.		____
Guideline No. 3		
APPLIANCES		
Should meet minimum EER values compiled by the Federal Energy Administration..... 5 pts.		
"Solar Assist" Water Heater.....15 pts.		
		____ pts.

*Applicable to 3500-5500 degree day area. Rating for other degree day bands may vary as the recommended minimum R values fluctuate by degree day.

APPENDIX "E"

TYPICAL FINANCIAL ASSISTANCE PLAN

N.E.W. does not prescribe any specific homeowner financial assistance program. It only requires that each participating company have a plan that is suited to its individual operating circumstances. All such plans must be submitted to the national offices of N.E.W. for acceptance at the time application is made for company membership in the program (see Appendix "G").

Among the types of plans that are generally acceptable are the following:

+ Programs in which the utility works with banks and/or other financial institutions in the development of plans which the latter can offer independently to the homeowner.

+ Programs in which the utility simply serves as a catalyst to bring the banks and the homeowner together.

+ Programs in which the utility does the financing itself at a reasonable rate of interest with the charge to the homeowner either on or off the monthly utility bill.

+ Programs utilizing Federal funds as they become available.

APPENDIX "F"

TYPICAL REMODELING ASSISTANCE PLANS

N.E.W. does not prescribe any specific homeowner remodeling assistance plan. It only requires that each participating company have a plan that is suited to its individual operating circumstances. All such plans must be submitted to the national offices of N.E.W. for acceptance at the time application is made for company membership in the program (see Appendix "G").

Among the types of plans that are generally acceptable are the following:

+ Plans in which the utility handles the necessary paperwork but subcontracts the actual construction to an independent contractor.

+ Plans in which the utility works in "partnership" with a reputable franchised or licensed contractor who assumes responsibility for actual construction, carries the paper and assumes all liability.

+ Plans in which the utility gives instruction and other practical assistance to the "do-it-yourself" homeowner.

+ Plans in which the utility company establishes its own working capability to do the remodeling work.

APPENDIX "C"

N.E.W. COMPANY MEMBERSHIP APPLICATION FORM

Reproduced below is a sample of the N.E.W. company membership application form. Copies may be obtained from the Program Administrator, EEI in New York, or application may be made without the form simply by submitting the information requested directly to the Administrator for processing.

NATIONAL ENERGY WATCH

COMPANY MEMBERSHIP APPLICATION FORM

Return to:
N.E.W. Program Administrator
Edison Electric Institute
90 Park Avenue
New York, New York 10016

Date_____

1. Application is hereby made for company membership in the NATIONAL ENERGY WATCH residential energy conservation program by

_____
(Company)

_____
(Company Address)

_____
(Name/Title of Company's N.E.W. Representative)

2. Our compliance with N.E.W. rules, as set forth in the "Program Outline" section of the Operating Manual, will be accomplished as indicated in the enclosed materials. (Note: A copy of the paragraphs referred to, and the guidelines that accompany them, is attached. A short narrative summary of the procedures your company intends to use in fulfillment of these rules will suffice.)

3. We will announce the N.E.W. program in our area on or about _____.
(Date)

4. As soon as this application has been processed, please send us the following:

A. A certificate of company membership in the program.
B. Two copies of the Operating Manual and Promotion Catalog.

Signed_____

APPENDIX "H"

PROGRAM NOMENCLATURE AND GRAPHIC SYMBOL

The name, NATIONAL ENERGY WATCH, is the official designation of the residential energy conservation program sponsored by the Edison Electric Institute and its member companies. Both the name and the graphic symbol shown below have been registered by EEI.

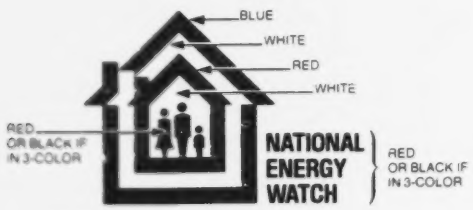
Both the name and the graphic symbol may be used by participating companies as they consider appropriate, except that care should be taken not to alter or distort the basic design features of the symbol in any way.

Use of the N.E.W. symbol in conjunction with other conservation symbols is permissible in cases where participating companies elect to continue existing programs under the N.E.W. umbrella. For purposes of demonstrating a strong national effort, however, it is desirable in all cases to display the N.E.W. symbol as prominently as possible.

Standard colors for the symbol are red, white and blue "flag colors," as shown below. Color substitutes are acceptable when the standard colors are not available, or when the substitutes are more appropriate in a particular application.

The standard typeface used in printing the name is Helvetica Bold Condensed. Substitutes should be avoided if at all possible.

Reproduction proofs of the symbol and name are provided in the Promotion Catalog section of this Manual. Additional copies may be obtained from the N.E.W. Program Administrator, EEI, New York.



COLORS USED PMS RED #185
PMS BLUE #285

COMMERCIAL/INDUSTRIAL
NATIONAL ENERGY WATCH

OPERATING MANUAL
AND
PROMOTION CATALOG

Edison Electric Institute
1111 19th Street, N.W.
Washington, D.C. 20036

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1978

September 4, 1979

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INTRODUCTION

The Commercial/Industrial National Energy Watch Program is conceived as an extension of the original Residential N.E.W. program. The objectives of the two programs are the same: At the national level the objective is to help reduce the drain on the fossil fuels that are in short supply. At the utility level, it is to help reduce the requirement for new and costly generating facilities. And at the customer level, it is to help keep energy bills as low as possible.

The operational goals of the C/I and Residential programs are also the same: to enlist as many customers in the program as possible.

Finally, much of the organizational structure and many of the administrative procedures developed for the Residential program are equally appropriate in the C/I program.

For reasons such as these, it will be observed that there are strong similarities between this C/I Manual and the original manual prepared for the Residential program.

There are, however, significant differences to be taken into account in the development and administration of the C/I program:

- There are far fewer Commercial/Industrial customers.
- Typically, C/I customers use much more electricity.
- In the Residential program, the greatest potential savings - at least initially - is attainable by improving the thermal insulation of the structure itself. In the C/I program, the greatest potential saving is in processing - the use of electrical systems and equipment to produce a product or service.

Thus, the differences as well as the similarities have been taken into account in the development of this Manual.

The C/I N.E.W. program seeks to obtain as broad customer participation as possible. To this end, the program has been separated into two categories; customer Enrollment, in which a pledge is made to attain certain goals by a specified time, and customer Membership, which is awarded when goals have been attained. Details regarding both Enrollment and Membership categories are found on pages 8 and 9.

UTILITY ELIGIBILITY

+ All electric utilities (straight electric, combination, cooperatives and municipals) are eligible to participate as Utility Members in the National Energy Watch program provided they develop and implement programs designed to encourage customer enrollment in the program under any of the provisions listed in the "Customer Participation in N.E.W." section of this Manual.

+ Commercial/Industrial and Residential N.E.W. programs are separate activities. Utility membership in one is not contingent upon, nor does it include, membership in the other.

+ There will be no monetary assessment for Utility Membership in N.E.W.

CUSTOMER PARTICIPATION IN N.E.W.

There are two levels of customer participation in the C/I N.E.W. program: "Membership" and "Enrollment". Requirements for participation in each of these categories are described below.

CUSTOMER MEMBERSHIP REQUIREMENTS

Commercial/Industrial customers will qualify for Membership in the National Energy Watch under one of the following conditions:

New Construction:

1. When Chapters 1 through 11 of ASHRAE-90 Standards* are complied with, or if more stringent, when State Building codes are complied with, or...

2. When guidelines developed by the cognizant utility and accepted by N.E.W. headquarters are met.

Existing Construction:

1. When ASHRAE-100 Standards** (when published) are complied with, or...

2. When customer has achieved the "energy efficiency improvement target" established for his SIC category in the Department of Energy's "Industrial Energy Improvement Program" (See Appendix "B", or...

3. When customer attains a 20% improvement in energy efficiencies over base year of 1972 as measured in Btu's per unit of output or service, or...

4. When customer meets the requirements of an Energy Management program that has been developed by the local utility, provided to the appropriate state regulatory body (if requested) and accepted by N.E.W. headquarters.

Note: While a corporation may qualify as a corporate entity for N.E.W. membership, such membership may be withheld from any component part of the corporation if, in the judgement of the cognizant utility, such component does not qualify in its own right.

* Available from N.E.W Manager, upon request.

** The ASHRAE-100 Standards will be reviewed by the EEI C/I Committee upon their publication. A determination will be made after review as to whether compliance with all aspects of the Standards will be required for N.E.W. Membership.

CUSTOMER ENROLLMENT REQUIREMENTS
(Existing Construction Only)

Commercial/Industrial customers will qualify for Enrollment in the National Energy Watch under one of the following conditions:

1. When a customer pledge is made to initiate programs to attain ASHRAE-100 Standards (when published) by December 1980, or...

2. When customer is a participant in DOE's Industrial Energy Improvement Program, but has not achieved one of the established energy efficiency improvement targets.

3. When customer pledge is made to attain a 20% improvement in energy efficiencies over base year 1972 as measured in Btu's per unit of output or service, or...

4. When customer pledge is made to meet guidelines developed by the cognizant utility and accepted by N.E.W. headquarters.

Enrollees will qualify for Membership status when they attain pledged action.

Note: The purpose of awarding N.E.W. "Enrollments" on the basis of customer pledges to meet "Membership" requirements is to make the N.E.W. program as publicly visible as possible as quickly as possible, and thus speed the momentum of the effort. Means of recognizing customer participation in the program are described on the following page.

RECOGNITION

Utilities are encouraged to give maximum local recognition to C/I customers who participate in the N.E.W. program through local newspapers, in employee publications, etc.

Standard certificates for both Members and Enrollees are available in the Promotion Catalog of this Manual. Utilities may design their own certificates if such certificates are submitted to and accepted by N.E.W. headquarters.

N.E.W. pennants in two sizes are also available in the Promotion Catalog for both Members and Enrollees.

SURVEYS AND INSPECTIONS

The methodologies employed by individual utilities in making their surveys and/or inspections to determine customer qualifications for membership in N.E.W. will be determined by the utilities.

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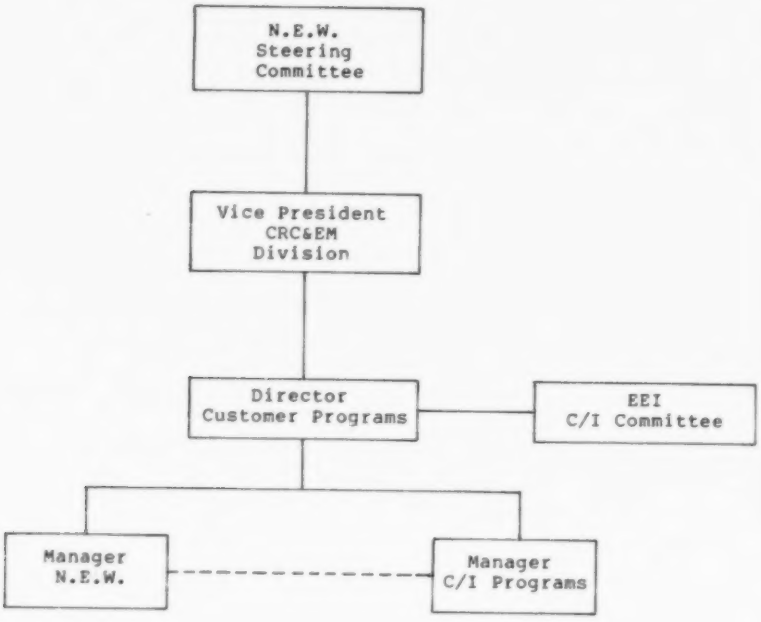
PROGRAM ORGANIZATION

At the national level, C/I N.E.W. will be organized as follows:



RESPONSIBILITIES (EEI)

I. N.E.W. STEERING COMMITTEE:

There will be one N.E.W. Steering Committee serving both the Residential and Commercial/Industrial programs. It will be appointed by the Chairman of the Board of EEI from among members of the Energy Management Committee and the Public Information Committee. There will be 12 members on the Committee; six from the Energy Management Committee, and six from the Public Information Committee. Appointments will be made on a rotating basis to assure continuity. Specific responsibilities will include the following:

1. Exercising overall policy supervision of the program.

2. Approving any proposed changes in the governing provisions of this Manual.

3. Ruling on any disputed application for utility membership in the program.

4. Reviewing and giving Steering Committee approval to proposed annual programs and budgets before such proposals are incorporated in EEI's general annual budget request.

II. VICE PRESIDENT, CUSTOMER RELATIONS, CONSERVATION & ENERGY MANAGEMENT:

The Vice President, CRC&EM Division, shall be the senior staff officer, directly responsible for all aspects of the C/I N.E.W. program. His specific responsibilities shall include the following:

1. Keeping the President of EEI and the N.E.W. Steering Committee advised in a timely fashion of all major program activities, and seeing that both the content and the administration of the program are responsive to their directives.

2. Recommending (as part of the CRC&EM Division budget) an annual C/I N.E.W. program and budget, after obtaining the concurrence of the Steering Committee.

III. DIRECTOR, CUSTOMER PROGRAMS

The Director, Customer Programs shall report to the Vice President, CRC&EM, and shall be responsible to him for the following:

1. Keeping the Vice President, CRC&EM and the C/I Committee advised in a timely fashion of all major program activities, and seeing that both the content and the administration of the program are responsive to their directives.

2. Operational direction of the program.

3. Recommending to the Vice President, CRC&EM, an annual C/I N.E.W. program and budget, after obtaining the concurrence of the C/I Committee.

4. Maintaining continuing liaison with appropriate governmental agencies to assure their familiarity with the program's progress, and to assure their active cooperation wherever appropriate.

IV. MANAGER, C/I N.E.W. PROGRAM

The N.E.W. Program Manager shall report to the Director, Customer Programs, and shall be responsible to him for general administration of the program including the following:

1. The processing of applications for utility membership in N.E.W.

2. Serving as official point of contact with participating utilities.

3. Developing and administering (in coordination with the C&PI Division) appropriate national public information activities designed to stimulate maximum C/I customer participation in N.E.W.

4. Developing appropriate promotional support materials for member utilities to use in their local promotional activities.

5. Preparing and submitting to the Director of Customer Programs an annual C/I N.E.W. program and budget.

6. Maintaining a file of semi-annual utility reports.

7. Preparing and distributing the newsletter, "N.E.W. Ideas."

8. Maintaining continuing liaison with representatives of the program's trade allies for the purpose of enlisting their active support.

9. Developing and maintaining appropriate stocks of administrative supplies and forms such as utility membership applications, customer membership certificates, etc.

10. Coordination of all C/I N.E.W. activities with Manager of Commercial/Industrial Programs.

V. EEI COMMERCIAL/INDUSTRIAL COMMITTEE

The EEI Commercial/Industrial Committee shall be responsible for the following:

1. Maintaining a continuing overview of the program to assure its operational effectiveness and administrative efficiency.

2. Making recommendations for changes in content of administration of the program to the Director of Customer Programs whenever such changes are considered appropriate.

RESPONSIBILITIES (Participating Utilities)

Participating utility responsibilities shall include the following:

1. Designating a C/I N.E.W. Program Representative and developing locally appropriate organizational structures and administrative procedures.

2. Developing locally appropriate functional procedures for the following program activities:

   a. Surveying customer operations against N.E.W Membership/Enrollment criteria as established in the "Customer Membership/Enrollment Requirements" sections of this Manual.

   b. Making recommendations (in the case of existing operations) as to how energy efficiencies can be improved upon, especially through substitution, in the areas of heating, ventilating, air conditioning and lighting.

   c. Awarding N.E.W. Membership or Enrollment certificates and other appropriate recognition to customers whose operations meet the established criteria.

3. Submitting an outline of the above functional procedures to the Program Manager at the time application is made for utility membership and (subsequently) advising the Program Manager of any substantial changes in such procedures.

4. Developing and administering locally appropriate N.E.W. promotional programs.

5. Submitting semi-annual activity reports to the N.E.W. Program Manager that include a review of major promotional activities and an indication of the number of C/I customers in the utility's service area participating in the program.

6. Advising the Program Manager of any change in the utility's Program Representative.

7. Advising the national Program Manager of utility election to withdraw from the program.

PROCEDURES

I. UTILITY MEMBERSHIP APPLICATIONS:

Applications for utility membership in the C/I N.E.W. Program will be submitted to the Program Manager on the form indicated in Appendix "A". (Copies available from EEI Program Manager.)

II. PROCESSING UTILITY MEMBERSHIP APPLICATIONS:

Upon receipt, applications for utility membership in C/I N.E.W. will be processed by the Program Manager as expeditiously as possible. Any questions regarding the application will be referred by the Program Manager to the applying utility's N.E.W. Program Representative for clarification. In the event such questions cannot be resolved in this way, the matter will be referred through channels to the Steering Committee for resolution.

Upon acceptance of the application, the Program Manager will send the following materials to the member utility:

1. Two copies of the Operating Manual.

2. Promotional Materials as ordered.

III. PROGRAM INPLEMENTATION:

Local C/I N.E.W. programs may be implemented by participating utilities at any time after member applications have been accepted.

APPENDICES

APPENDIX "A"

Utility Membership Application Form

(This is a sample copy. Standard forms are available from N.E.W. Program Manager, EEI headquarters, Washington.)

Commercial/Industrial
National Energy Watch Program
Utility Membership Application Form

Return to:
C/I N.E.W. Program Manager
Edison Electric Institute
1111 19th Street, N.W.
Washington, D.C. 20036

Date _____

1. Application is hereby made for utility membership in the C/I National Energy Watch conservation program by:

_____
(Utility)

_____
(Utility Address)

_____
(Name, Title of Utility's C/I N.E.W. Representative)

1A Name and titles of additional persons to receive information regarding the program are listed on a page attached to this application.

2. Check as applicable:

___ We plan to accept C/I customers into the N.E.W. program under the conditions specified in the "Customer Participation in N.E.W." section of the C/I N.E.W. Manual.

___ We are developing our own membership requirements.

3. We will announce the C/I N.E.W. program in our area on or about _____.

4. As soon as this application has been processed, please send us two copies of the C/I N.E.W. Operating Manual and Promotion Catalog.

Signed _____

Title _____

APPENDIX "B"

Department of Energy "Industrial Energy Improvement Program"

By provision of this Manual, Commercial/Industrial customers qualify to participate in the C/I N.E.W. program if they are a part of the Department of Energy's "Industrial Energy Improvement Program". (See "Customer Participation In N.E.W., page 8).

Included as a part of this Appendix is the latest Annual Report on this program issued by DOE (June, 1978). The I.E.I. Program is the instrument through which DOE administers the provisions of the Energy Policy Conservation Act of 1975. The program, as revised*, requires that all manufacturing corporations in the 20 and 30 SIC who consume a trillion Btu's a year or more must report annually on progress they are making in improving energy efficiencies. Target efficiencies are established in the program for each SIC category.

Also included as a part of this Appendix is the latest available list (Federal Register - May 6, 1979) of the U.S. corporations that are presently active in the program.

For purposes of participation in C/I N.E.W.:

+ All corporations included in the accompanying list will qualify automatically as "Enrollees" on the assumption that if they are involved in the DOE program they are committed to achieving the energy efficiency improvement target established for their SIC category.

+ All corporations included in the list will qualify as "Members" if and when they can demonstrate to the satisfaction of the cognizant utility that they have achieved the energy efficiency improvement target established for their SIC category.

+ Corporations in the 20 or 30 SIC categories that participate in the I.E.I. Program on a voluntary basis (i.e., who do not consume a trillion Btu's a year) will qualify as "Members" if they can demonstrate to the satisfaction of the cognizant utility that they have achieved the energy efficiency improvement target established for their SIC category.

+ Corporations not included in the 20 or 30 SIC categories, but who participate in the I.E.I. Program on a voluntary basis, will qualify only as "Enrollees" in the C/I N.E.W. program since no efficiency targets have been established for such corporations. They may, of course, qualify for "Membership" under one of the other "Customer Membership Requirements" established in this Manual.

* Revision of program not included in attached "Annual Report."

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federal register

Wednesday
May 16, 1979

Part II

Department of Energy

Industrial Energy Conservation Program; Updated Identification of Corporations for Purposes of Industrial Energy Reporting and Recovered Materials Reporting

Clevepak Corporation
Collins & Aikman Corporation
Consolidated Papers, Inc.
Continental Group, Inc.
Crown Zellerbach Corporation
Dennison Manufacturing Company
Dexter Corporation
Diamond International Corp.
Erving Paper Mills, Inc.
Federal Paper Board Co., Inc.
Finch Pruyn & Co., Inc.
Flintkote Company
Fort Howard Paper Company
Fraser Paper Limited
GAF Corporation
Garden State Paper Co., Inc.
Georgia Pacific Corporation
Gilman Paper Company
Great Northern Nekoosa Corp.
Green Bay Packaging, Inc.
Gulf & Western Industries, Inc.
Gulf States Paper Corp.
Hammermill Paper Company
Howard Paper Mills, Inc.
Hudson Pulp & Paper Corp.
International Paper Company
International Telephone & Telegraph Corp.
Interstate Paper Corporation
James River Corporation of Virginia
Jim Walter Corporation
Johns-Manville Sales Corp.
Johnson & Johnson
Keyes Fibre Co.
Kimberly-Clark Corporation
Litton Industries, Inc.
Longview Fibre Company
Louisiana-Pacific Corporation
MacMillan Bloedel, Inc.
Marcal Paper Mills, Inc.
Masonite Corporation
Mead Corporation
Menasha Corporation
Minnesota Mining & Manufacturing Co.
Mobil Oil Corporation
National Gypsum Company
Newton Falls Paper Mill, Inc.
Olin Corporation
Owens-Illinois, Inc.
P. H. Glatfelter Co.
Penntech Papers, Inc.
Philip Morris, Incorporated
Pineville Kraft Corporation
Port Huron Paper Company
Potlatch Corporation
Procter & Gamble Co.
SCM Corporation
Scott Paper Company
Simpson Paper Company
Sonoco Products Company
Southwest Forest Industries, Inc.
St. Joe Paper Company
St. Regis Paper Company
Stone Container Corporation
Tenneco, Inc.
Time, Inc.
Times Mirror Company
Union Camp Corporation
United States Gypsum Company
Virginia Fibre Corporation
Wausau Paper Mills Company
Western Paper & Mfg. Co.
Westvaco Corporation
Weyerhaeuser Company
Williamette Industries, Inc.

SIC 27—Printing and publishing

Chase Bag Company
Gulf & Western Industries, Inc.
R. R. Donnelley & Sons Company

SIC 28—Chemicals and Allied Products

Abbott Laboratories
Air Products & Chemicals, Inc.
Airco, Inc.
Akzona Incorporated
Alcon Laboratories, Inc.
Allegheny Ludlum Industries, Inc.
Allied Chemical Corporation
Aluminum Company of America
American Can Company
American Cyanamid Company
American Hoechst Corporation
American Home Products Corp.
American Petrofina, Inc.
American Synthetic Rubber Corp.
Arizona Chemical Company
Asarco, Incorporated
Ashland Oil, Inc.
Atlantic Richfield Company
Avtex Fibers, Inc.
B. F. Goodrich Company
Badische Corporation
BASF Wyandotte Corporation
Baxter Travenol Laboratories Inc.
Big Three Industries, Inc.
Borden, Inc.
Borg-Warner Corporation
Bristol-Myers Company
C. F. Industries, Inc.
Cabot Corporation
Cargill, Incorporated
Carrier Corp.
Celanese Corporation
Ciba-Geigy Corporation
Cities Service Company
Coastal States Gas Corporation
Colgate-Palmolive Company
Columbia Nitrogen Corporation
Cominco American, Incorporated
Commonwealth Oil Refining Co.
Continental Oil Company
Copolymer Rubber & Chemical Corp.
CPC International, Inc.
Dart Industries, Inc.
Diamond Crystal Salt Company
Diamond Shamrock Corporation
Dow Chemical Company
Dow Corning Corporation
E. I. Du Pont De Nemours & Co.
Eagle Picher Industries, Inc.
Eastman Kodak Company
El Paso Products Company
Eli Lilly and Company
Emery Industries, Inc.
Ethyl Corporation
Exxon Corporation
Farmland Industries, Inc.
Felmont Oil Corporation
Ferro Corporation
Firestone Tire & Rubber Co.
First Mississippi Corporation
FMC Corporation
Freeport Minerals Company
GAF Corporation
Gardinier Big River, Inc.
General Electric Company
General Tire & Rubber Co.
Georgia-Pacific Corporation
Getty Chemical Company
Goodyear Tire & Rubber Co.
Greyhound Corporation
Gulf & Western Industries, Inc.
Gulf Oil Corporation
Gulf Resources & Chemical Corp.
Hardy Salt Company
Hawkeye Chemical Company
Henkel Corporation
Hercules Incorporated
Hoffmann-La Roche, Inc.
Hygrade Food Products Corp.
ICI Americas, Inc.
International Minerals & Chemical Corp.
J. M. Huber Corporation
J. R. Simplot Company
Johnson & Johnson
Kaiser Aluminum & Chemical Corp.
Kerr-McGee Corporation
Knoll Pharmaceutical Co.
Koppers Company, Inc.
Kraft, Inc.
Lever Brothers Company
Linden Chemicals & Plastics, Inc.
Lubrizol Corporation
Mallinckrodt, Inc.
Martin Marietta Corporation
Melamine Chemicals, Inc.
Merck & Co., Inc.
Merichem Company
Miles Laboratories, Inc.
Minnesota Mining & Manufacturing Co.
Mississippi Chemical Corp.
Mobay Chemical Corporation
Mobil Oil Corporation
Monsanto Company
Morton-Norwich Products, Inc.
N-Ren Corporation
Nalco Chemical Company
Nipak, Inc.
Nipro, Inc.
NL Industries, Inc.
North American Rayon Corp.
Northern Natural Gas Company
Northwest Industries, Inc.
Occidental Petroleum Corp.
Olin Corporation
Oxirane Chemical Company
Pennwalt Corporation
Pfizer, Inc.
Phillips Petroleum Company
PPG Industries, Inc.
PQ Corporation
Procter & Gamble Co.
Publicker Industries, Inc.
PVO International, Inc.
Quaker Oats Company
Reichhold Chemicals, Inc.
Reilly Tar & Chemical Corp.
Reynolds Metals Company
Rhone-Poulenc, Inc.
Richardson-Merrell, Inc.
Rohm and Haas Company
SCM Corporation
Shell Oil Company
Sherex Chemical Co., Inc.
Sherwin-Williams Company
Signal Companies, Inc.
Soltex Polymer Corporation
Squibb Corporation
St. Joe Minerals Corporation
Standard Oil Company (Indiana)
Standard Oil Company (Ohio)
Standard Oil Company of California
Stauffer Chemical Company
Sterling Drug, Inc.
Superior Oil Company
Swift Agricultural Chemicals Corp.
Tenneco, Inc.
Terra Chemicals International, Inc.
Texaco, Inc.
Texasgulf, Inc.
Thiokol Corporation
Tyler Corporation
Union Camp Corporation
Union Carbide Corporation
Union Oil Co. of California
Uniroyal, Inc.
United States Borax & Chem. Corp.
United States Steel Corp.

Upjohn Company
USA Petroleum Corp
Valley Nitrogen Producers, Inc
Velsicol Chemical Corporation
Vertac, Inc
Virginia Chemicals, Inc
Vulcan Materials Company
W. R. Grace & Co
Warner-Lambert Company
Westvaco Corporation
Williamette Industries, Inc
Williams Companies
Witco Chemical Corporation

SIC 29—Petroleum and Coal Products

Agway, Inc
Amerada Hess Corporation
American Home Products Corp
American Petrofina, Inc
Asamera Oil (U.S.) Inc
Ashland Oil, Inc
Atlantic Richfield Company
Beacon Oil Company
Belridge Oil Company
Bird & Son Inc
Certainteed Corporation
Champlin Petroleum Co
Charter International Oil Co
Cities Service Company
Clark Oil & Refining Corp
Coastal States Gas Corporation
Commonwealth Oil Refining Co
Continental Oil Company
Crown Central Petroleum Corp
Crystal Oil Company
Diamond Shamrock Corporation
Dorchester Gas Corporation
Energy Cooperative, Inc
Exxon Corporation
Farmers Union Central Exchange, Inc
Farmland Industries, Inc
Fletcher Oil & Refining Co
GAF Corporation
Getty Refining & Marketing Co
Great Lakes Carbon Corporation
Guam Oil & Refining Co., Inc
Gulf Oil Corporation
Holly Corp
Hunt Oil Company
Husky Oil Company
Indiana Farm Bureau Cooperative Association, Inc
Jim Walter Corporation
Johns-Manville Sales Corp
Kern County Refinery, Inc
Kerr-McGee Corporation
Koch Industries, Inc
Koppers Company, Inc
Little America Refining Co
Louisiana Land & Exploration Co
Marathon Oil Company
Mobil Oil Corporation
Murphy Oil Corporation
National Cooperative Refinery Association
OKC Corp
Oklahoma Refining Company
Owens-Corning Fiberglas Corp
Pacific Resources, Inc
Pennzoil Company
Petrolite Corp
Phillips Petroleum Company
Placid Refining Company
Powerine Oil Company
Pride Refining, Inc
Quaker State Oil Refining Corp
R. J. Reynolds Industries, Inc

Reserve Oil & Gas Company
Rock Island Refining Corp
Shell Oil Company
Sinclair Oil Corp
Southern Union Company
Southland Oil Company
Standard Oil Company (Indiana)
Standard Oil Company (Ohio)
Standard Oil Company of California
Standard Products Co
Sun Company, Inc
Superior Oil Company
Tenneco, Inc
Tesoro Petroleum Corp
Texaco, Inc
Texas Eastern Transmission Corp
Time Oil Company
Tosco Corporation
Total Petroleum, Inc
Union Oil Co. of California
Uniroyal, Inc
United Refining Company[1]
USA Petroleum Corp
Vickers Petroleum Corporation
Winston Refining Company
Witco Chemical Corporation

SIC 30—Rubber, Misc. Plastic Products

Amerace Corporation
American Cyanamid Company
Armstrong Rubber Company
B. F. Goodrich Company
Budd Company
Continental Group, Inc
Cooper Tire & Rubber Company
Dart Industries, Inc
Dayco Corporation
Eagle Picher Industries, Inc
Ethyl Corporation
Firestone Tire & Rubber Co
G. Heileman Brewing Company, Inc
Gates Rubber Company
General Electric Company
General Motors Corporation
General Tire & Rubber Co
Goodyear Tire & Rubber Co
High Voltage Engineering Corp
Michelin Tire Corporation
Minnesota Mining & Manufacturing Co
Mobay Chemical Corporation
Novamont Corporation
Raychem Corporation
Reichhold Chemicals, Inc
Rhone-Poulenc, Inc
Roper Corporation
Union Carbide Corporation
Uniroyal, Inc
W. R. Grace & Co
Westinghouse Electric Corp

SIC 31—Leather and Leather Products

Roper Corporation

SIC 32—Stone, Clay and Glass Products

Adolph Coors Company
AFG Industries, Inc
Allied Products Company
Alpha Portland Cement Company
Amcord, Inc
American Standard, Inc
Amsted Industries Incorporated
Anchor Hocking Corporation
Arkansas Louisiana Gas Company
Armco, Inc
Armstrong Cork Company
Ash Grove Cement Company
Austin White Lime Company
Babcock & Wilcox Company
Ball Corporation

Basic Incorporated
Belden Brick Company
Bethlehem Steel Corporation
Bickerstaff Clay Products Co., Inc
Boren Clay Products Company
Brockway Glass Company, Inc
California Portland Cement Co
Can-AM Corporation
Capitol Aggregates, Inc
Centex Corporation
Certainteed Corporation
CLM Corporation
Combustion Engineering, Inc
Coplay Cement Manufacturing Co
Corning Glass Works
Crane Co
Dart Industries, Inc
Delta Macon Brick & Tile Co
Dickey Company
Domtar Industries, Inc
Dorsey Corporation
Dravo Corporation
Dresser Industries, Inc
Dundee Cement Company
Eagle Picher Industries, Inc
Edw. C. Levy Company
Eltra Corporation
Engelhard Minerals & Chemicals Corp
Federal Paper Board Co., Inc
Ferro Corporation
Filtrol Corporation
Flintkote Company
Ford Motor Company
GAF Corporation
Gallo Glass Company
General Telephone & Electronic Corp
General Dynamics Corp
General Electric Company
General Shale Products Corp
Georgia-Pacific Corporation
Giant Portland & Masonry Cement Co
Gifford-Hill & Company, Inc
Glen-Gery Corporation
Glenshaw Glass Company, Inc
Guardian Industries, Corp
Gulf & Western Industries, Inc
Harsco Corporation
Heal Basic Industries, Inc
Illinois Cement Company
Interpace Corporation
J. F. Baker Company
J. M. Huber Corporation
Jim Walter Corporation
Johns-Manville Sales Corp
Justin Industries Inc
Kaiser Aluminum & Chemical Corp
Kaiser Cement & Gypsum Corp
Kennecott Copper Corporation
Kerr Glass Manufacturing Corp
Keystone Portland Cement Co
Kohler Co
Kraft, Inc
Lancaster Colony Corp
Latchford Glass Company
Lehigh Portland Cement Company
Libbey-Owens-Ford Company
Liberty Glass Company
Louisville Cement Company
Martin Marietta Corporation
McDonough Co
Midland Glass Company, Inc
Minnesota Mining & Manufacturing Company
Mississippi Lime Company
Missouri Portland Cement Co
Monarch Cement Company
National Bottle Manufacturing Company
National Can Corporation
National Cement Company
National Gypsum Company
Nevada Cement Company

[1]Energy Consumption was less than one trillion Btu's in 1977 when feedstocks were included.

Mr. OTTINGER. Is it your plan to get aggressively involved, your members, both in installing and in financing the installation of solar in case S. 932 passes?

Mr. GREINER. No. We testified some four times in Congress that we are not in the installation financing business. We are not in the contracting business. Most electric utilities subscribe to this. There are a few gas utilities that are in that business, but in talking to the electric companies, we have enough difficulty raising the capital to try to work to produce the new generating capacity that we need without going into those areas.

There are a few companies that are looking at this from a solar standpoint to see what might be done as far as encouraging solar, particularly on hot water, but not on space conditioning.

Mr. OTTINGER. I am disappointed in your answer. I hope we can work with you to persuade you to see things differently. I think it is very much in the utilities' interest to get in the overall energy business, and not just in providing additional electric energy capacity. I think my own utility in New York is coming to see this.

The difficulty of raising the capital for the new, large central plants is increasing. We have provided in S. 932 a means for capitalizing the utilities to enable them to do the solar energy and the insulation work.

Mr. GREINER. Yesterday, today, and tomorrow there is a seminar being run in Kansas City which is to try to encourage the utilities to take another look at solar energy and how they should become involved in it. This is being run yesterday and today.

Mr. OTTINGER. There were two studies being done by the environmental people that I hope your members are aware of. They show—I believe it was in Oregon and Arkansas—they show the investment for solar and insulation is more advantageous to the utilities' stockholders as well as to the customers, than investment in new plants.

If, indeed, that is so, and I think it is likely to be increasingly so for a period of time, then I would hope that in the national interest and in the utilities' own interest that they would take another look at this. I think it is going to be advantageous all the way around.

Mr. GREINER. I am sure we will look at that.

I will remind you of one statement I had made to your chairman. It is that the reason for the California—that is, the Oregon—plan was that back in those years, they were installing insulation in homes with a very low rate. They did not insulate them as well as they should have. They find it cost-justified to do this.

Mr. OTTINGER. They found it was advantageous.

Mr. GREINER. Yes.

Mr. OTTINGER. As to cogeneration, I am told there is a great potential in Europe for using the existing factory-produced steam, in particular, to generate electricity. I had an experience in my own area where the General Motors' plant was redoing its plant. The autoworkers are fully employed and working overtime where others are being laid off.

I suggested to them that they install generating equipment in the plant. They came back with the conclusion: We are not in the power business, and we do not want to be. We do not know enough about it. Second, if we did generate power in the plant and supply it, we would have to go before the regulatory agencies and we would get involved in a long, involved, and difficult procedure for setting rates.

This is something they did not want to do. The idea occurred to me—and I have been pushing it very actively—why don't we get the utilities involved in cogeneration. Why doesn't the utility go to General Motors and say, "We will put that generating facility in for you; we will take over the problems of distribution at that utility; we will be permitted by the Public Service Commission to make a profit and put it in the rate base"?

It seems to me that is something that is very attractive for the utilities and for the Nation to pursue. Yet there seems to be a good deal of resistance. Where are your members at this point with respect to participating in an encouraging cogeneration, as opposed to the resistance which I understand they have of encouraging plants to put in their own electric-producing equipment?

Mr. GREINER. Mr. Congressman, in cogeneration the utilities have been working with industry in the past, particularly in the gulf coast area. This is where industries need the waste heat and the petrochemical and chemical industries. They have been cogenerated in the past, and will continue in the future.

The difficulty that you run into is that it takes us roughly 12 years to bring out a new generating plant.

In industry, to use this, the heat from the plant, the process does not go out that far. They look at, roughly, a 2- or 3-year plan in building on a new plant. They say to have us calculate downstream 10 or 12 years to use waste heat from a new generating plant, that their competition, well, they can't stand still for it. That's what happens.

Mr. OTTINGER. What if you put in a generating facility?

Mr. GREINER. It takes us roughly 12 years to bring one onstream. If we try to cogenerate along with another industrial customer, they don't want to get involved with the planning process of 10 or 12 years downstream. They are only interested if we can bring it downstream in 2 or 3 years. They would then do it.

Now, as far as using the same kind of process, let us say for a commercial operation, well, a commercial building is not interested in planning 12 years from now.

Mr. OTTINGER. I think that we ought to take a look at that.

Mr. GREINER. We are, sir, but it is difficult. As you move the car plants farther and farther away from civilization, it becomes more difficult to cogenerate. We are particularly doing this in petrochemical and chemical. There is where the need for waste heat really exists. That is where cogeneration is.

Mr. OTTINGER. In the building and energy performance standards, my understanding of those standards is that they set energy per square foot. It is the Btu per square foot or a limitation on this. That's really all that they do. The rest of the regulations that go with BEPS are designed to give guidelines as to how they go about meeting those standards.

It has been made to appear by the building industry, as you have mentioned here today, as if it were some tremendously complex counterproductive effort. It gives me concern. It seems to me that we have a clear interest in seeing to it that the builders of the future, will build more energy-efficient buildings. That is what the design really is.

Is your objection to the concept or guidelines that are put out in the measurement of the savings? I don't quite understand.

Mr. GREINER. Mr. Congressman, we do not object to the approach taken. We much prefer a descriptive type of approach with ASHRAE Standard 90–75 which is already in place in some 42 States. This is designed section by section in a building. It is what you have to build. We prefer that approach to the performance-type approach, which is designed with the BEPS standard.

Now, the major problem that we see in BEPS, Mr. Congressman, is not in the numbers that they came up with in the Btu per square foot, but it is in the weighting factor. It is to take it back to the hole in the ground. They call them resource utilization factors and resource impact factors. They decided that they could not come up with the resource utilization factor and the impact factor they could not design. Therefore, they came up with a new number called weighting factors. It is the wolf in sheep's clothing.

Mr. MCCORMACK. Will you yield?

Mr. OTTINGER. Yes.

Mr. MCCORMACK. Isn't it a fact that the cheapest way to heat and cool a modern building today, everything else equivalent, is a hydroelectric powered heat pump?

Mr. GREINER. Yes. Even DOE admits that.

Mr. MCCORMACK. And you simply go right along with the cheapest form of electricity for the heat pump until you eventually reach the cost where electricity is too expensive. Then the heat pump would not be competitive with the next most beneficial system.

Mr. GREINER. Yes.

Mr. MCCORMACK. With an electric heat pump, in some parts of the country, you would have some sort of a heat reservoir that could be solar assisted.

Mr. GREINER. Yes; or the storage where you could store the off-peak. You could use the on-peak.

Mr. OTTINGER. Are your members promoting the heat pump, Mr. Greiner?

Mr. GREINER. The utilities are generally supporting the heat pumps. It is not in all areas of the country. Roughly, 80 percent of our utilities have a summer peak. They also want to balance this with the winter load. The most efficient way to do that, sir, is with the heat pump.

Mr. OTTINGER. I have not seen that in my area at all. What are the utilities doing in this regard?

Mr. GREINER. The utilities are recommending to the customers the best way to heat and cool the buildings. This is generally a heat pump in most areas. It is that.

Mr. OTTINGER. Is that being done in the New York area, Mr. Greiner?

Mr. GREINER. In the New York City area, probably the heat pump would have a difficult time because of the cost, Mr. Congressman.

Mr. OTTINGER. Because of the cost?

Mr. GREINER. Yes.

Mr. OTTINGER. Go ahead.

Mr. GREINER. In other parts of New York State, yes; they are putting them in.

Mr. OTTINGER. Mr. Chairman, I do have one last question to ask.

Mr. MCCORMACK. Yes.

Mr. OTTINGER. I thank the Chair.

I take it that you have no problem with the Federal Government using the taxpayers funds to give the utilities a $10 billion incentive to burn coal.

Mr. GREINER. We already commented on that at the other hearings.

Mr. OTTINGER. But you support this?

Mr. GREINER. Yes.

Mr. OTTINGER. Yet, you have problems with the Federal Government giving State and local communities money for planning and conservation purposes.

Mr. GREINER. We are concerned that this pancakes on top of other things that are already in place. That's the major concern.

Mr. OTTINGER. You seem to indicate it was an inappropriate use of funds. I didn't understand the philosophic imbalance, Mr. Greiner. I think it is appropriate, if we can, to use the Federal funds to alleviate our dependence on imported oil. If we can do that quickly, efficiently and cost effectively for conservation, we should do it, or if we can also do that quickly, efficiently and cost effectively through cogeneration, we should do it.

Mr. GREINER. We certainly support conservation. We are concerned in this particular piece of legislation that they seem to be promoting the renewable energy sources above anything else.

Mr. OTTINGER. You don't think it is inappropriate if we can do this more effectively to use funds for State and local planning or resources?

Mr. GREINER. We are always for more effective use of the taxpayers' money.

Mr. OTTINGER. With respect to the legislation, it is intended to consolidate the number of existing programs and make them used more efficiently.

I agree that the legislation is complex and needs more work.

Mr. GREINER. Yes.

Mr. OTTINGER. You have no problem with the concept of trying to get out an effective program for the State and local people in terms of energy resources on the main and supply side?

Mr. GREINER. As a concept that is probably so.

Mr. OTTINGER. Thank you.

Mr. GREINER. Yes, sir.

Mr. OTTINGER. Thank you, Mr. Chairman.

Mr. WOLPE. Mr. Chairman.

Mr. MCCORMACK. Mr. Wolpe

Mr. WOLPE. Mr. Chairman, on Sunday, April 6, of this year, the New York Times ran an article entitled: "Electricity Use No Longer Soaring; Nation Expected to Benefit in 80's."

It says: "Some experts predicting fewer utility rate increases, less new pollution and easing of nuclear debate."

This article was written by Mr. Anthony J. Parisi for the New York Times.

I would like at this time to ask unanimous consent that the full article be included in the record at this point.

Mr. MCCORMACK. Yes.

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Mr. WOLPE. I would like to address a few questions with respect to it.

Mr. MCCORMACK. You don't object to having the title, the author and origin put it with it?

Mr. WOLPE. No objection.

Mr. MCCORMACK. It is so ordered. The article will be made part of the record.

Mr. WOLPE. Thank you.

Mr. MCCORMACK. You may proceed.

[The above-referred article from the New York Times follows:]

[From the New York Times, Apr. 6, 1980]

ELECTRICITY USE NO LONGER SOARING; NATION EXPECTED TO BENEFIT IN 80'S

SOME EXPERTS PREDICTING FEWER UTILITY RATE INCREASES, LESS NEW POLLUTION AND EASING OF NUCLEAR DEBATE

(By Anthony J. Parisi)

A fundamental change is apparently taking place in the nation's appetite for electricity. Since 1974 Americans have been using far less electricity than the utility industry had expected, and now some analysts expect the rate of growth to fall even further in the future.

Such a trend, experts say, would have substantial social and economic effects, including these:

Since utilities would be spared the high cost of borrowing to build new generating plants, fewer rate increases would be needed. Although electricity costs would continue to rise, they would do so at a slower rate than had been expected.

The environment would benefit, because less power production means less pollution. As some experts see it, the growth in pollution from power plants might be so modest that such long-range problems as the "greenhouse" effect—excessive heating of the earth's surface caused by a blanket of man-made carbon dioxide—would be avoided.

The bitter debate over nuclear power would also ease. In the most optimistic projections, the nation's utilities would not even have to order any more nuclear plants.

CONSUMPTION DROP THIS YEAR

Last year electricity consumption rose only 2.8 percent in the country, down sharply from the 7 percent annual rate of growth that the industry routinely experienced until the early 1970's. So far this year, consumption has actually dropped, by 1.4 percent.

One reason is that the mild winter sharply reduced the needs of those who heat their homes with electricity. But even so, both the degree and the persistence of the drop-off has startled many experts. Demand, they noted, slipped in each of the first eight weeks of the year, marking one of the longest sustained declines on record.

"I think what we've seen in the last year is probably the precursor to the 80's—much, much lower growth rates," said Roger W. Sant, director of the Energy Productivity Center of the Carnegie-Mellon Institute of Research. "I suppose 3 percent growth is now the conventional wisdom, but my guess is that it will still be quite a bit lower than that."

As he and other specialists described it, a general slowdown in economic growth, consumer acceptance of more efficient motors and other power-consuming equipment, competition from other forms of energy and a variety of other factors will spell, at best, sluggish electricity growth in the years ahead.

Once, utilities simply assumed that the demand for power would forever match the rate of 7 percent a year at which it had risen almost from the inception of their industry. But that assumption went awry after energy prices exploded in 1973 and 1974.

From 1973 through 1978, consumption rose barely 3 percent a year on average. The yearly change ranged from slightly below zero in the recession year of 1974

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to a rate of 6.7 percent in the recovery year of 1976. Peak demand on any single day in the year—a key parameter for utilities because it directly determines how much generating capacity they must have on and—also rose barely 3 percent during this five-year period.

"Obviously, the old demand pattern has been broken," observed Irwin M. Stelzer, president of National Economic Research Associates, a highly regarded utility consulting concern. "Demand has turned out to be more elastic than most people had realized, and there's been more substitution of other fuels than had been expected."

POWER SHORTAGES AVOIDED

As a result, even though the utilities have canceled more new power plants than they have ordered, the nation has easily avoided the power shortages that many utility experts had predicted. Indeed, nationwide, the industry has twice as much generating capacity in reserve today as the backup of 15 to 20 percent that it has traditionally deemed a prudent margin of safety (although the margins in some regions, such as the Southeast are tight).

If the overall demand for power tapers off even more, the cost of power would rise more slowly because the utilities would not have to build as many power plants. A slowdown in power consumption would also mean that the utilities would burn less fuel and produce less waste than had been expected.

And many analysts now suggest that growth may slow so much that the industry could meet its customers' power requirements in the year 2000 without ordering a single additional nuclear power plant. A few even think some of the nuclear plants still being built are unnecessary.

At the same time, these experts say, the utilities should still be able to reduce their oil consumption sharply. As they see it, coal would take over the bulk of the industry's fuel requirements, but because power consumption would have grown so slowly, fewer coal-fired plants would be needed than if the current growth in demand prevailed and far fewer than if the historic growth rate had been maintained.

Last year, according to the Department of Energy, electric utilities used about 1.4 million barrels of oil a day, down from 1.7 million in 1978. The nation as a whole consumed 19.2 million, importing 8.2 million of that total.

INROADS FROM COAL

The department's figures also show that, for the first time since nuclear power plants began commercial operations in the United States, coal made substantial inroads into both nuclear fuel's and oil's share of the utility market. The number of kilowatt hours made from coal rose 10 percent over the 1978 figure. At the same time, electricity made from oil, which was in short supply early in the year, fell 17 percent. That made from nuclear energy—which was set back by the accident at Three Mile Island, concern about seismic activity and other troubles—dropped almost 8 percent.

To be sure, the idea of much lower electricity growth in the future is coming more from outside the industry than from within it. Projections vary considerably, with the more traditional forecasters predicting anywhere from just over 3 percent to almost 5 percent annual growth, but with some of the more radical groups suggesting that it may be as little as 1 or 2 percent—or even less.

The Edison Electric Institute, the trade association for the nation's investor-owned utilities, is now updating its long-term forecast, last published five years ago. William McCollam Jr., president of the institute, said in an interview that the study analyzes growth rates, over the next 20 years, ranging from 2 percent to more than 5 percent a year.

"But the most important conclusion in our study," he said, "is that factors of choice are far more important than factors of chance." He added, "If the nation doesn't go to what we call the preferred scenario—in the order of magnitude of 4 to 4.5 percent a year—then we are not going to have the healthy economic growth that we ought to."

Mr. McCollam argued that even though low growth was now in the best financial interests of most power companies—whose construction debts have grown so high that reluctant investors have driven the price of all but a few of the utilities' common stocks below book value—the country should nonetheless strive for higher, rather than lower, electricity growth. That, he asserted, would be in the best interests of the poor, because it would allow greater economic growth.

THE INDUSTRY AS 'THERMOMETER'

Others, however, argued that the goals of sufficient economic growth and slower electricity growth were not contradictory. They maintained that, regardless of the level of economic activity in the future, encouraging proportionately less growth in electricity consumption would be in the best interest of all, because it would relieve inflationary pressures throughout the economy.

"If the patient is the nation, the utility industry is the thermometer, not the medicine," said Ernst Habicht Jr., a consultant who until recently had been the Environmental Defense Fund's authority on utilities. "Short of war, providing electricity is the most capital-intensive thing man can do. With the prime rate hovering around 20 percent, it's the sort of thing we ought to be discouraging, not encouraging."

One reason why electricity growth has already tapered off in recent years is that economic growth has slowed considerably from the unusually high rates that marked the 1960's. The drop-off in electricity, however, has surpassed the drop-off in the economy. Utility economists say an assortment of factors have accounted for this.

For some tasks requiring energy, they say, people have switched from electricity to fossil fuels as the price of power has risen. A prime example is the home builder who no longer installs electric heat. And where they cannot switch, the experts say, people have begun to moderate their power consumption by, for example, specifying high-efficiency refrigerators and air-conditioners when they replace such equipment.

COSTLIEST ENERGY AVAILABLE

Such decisions often save a great deal of money because, in general, electricity is the most expensive form of energy one can buy. Although the initial cost of installing electric heating is low, the operating costs can be painfully high, especially in areas such as New York City, where the cost of electricity is more than twice the national average.

Even a comparison using the national average for residential rates, now approaching 4.5 cents a kilowatt hour, shows this to be true—if the figures are adjusted to account for pricing distortions introduced by various regulations.

At 4.5 cents a kilowatt hour, the cost of electricity is equal to almost $2 for a gallon of oil, or roughly twice as much as consumers now pay for home heating oil. Several corrections have to be made, however, before a valid comparison is possible.

[From the New York Times, Apr. 6, 1980]

BROAD IMPACT FORECAST AS U.S. ELECTRICITY USE SLOWS

The typical oil heating system delivers only about two-thirds of the energy in the fuel to the rooms in the form of heat, while essentially all the electric energy fed to a baseboard heater is converted to heat. Moreover, oil prices are held in check by Federal controls on domestic crude oil.

Adjusting for these factors would appear to wipe out oil's advantage. Indeed, in areas of the country where power is cheap, electricity seems to come out ahead.

On the other hand, since electric utilities are regulated monopolies, their prices are based on the cost of operating existing power plants—even though the cost of electricity supplied from a new plant (the so-called marginal, or replacement cost) may be almost twice as high.

After making this final adjustment, energy specialists say the real cost of heating a home with ordinary baseboard heaters is at least 50 percent greater than heating it with oil, despite the recent jump in oil prices.

"We're fooling people into thinking the electricity is cheaper than it is," Mr. Stelzer, the utility economist, said.

THE BURDEN OF CONVENIENCE

Similar comparisons can be made with any task that another form of energy can readily perform. In doing so, some energy analysts have concluded that it is

foolish to use electricity for anything but the the highly specialized jobs that only it can handle, such as powering motors and electronic equipment, or that it clearly does better, such as lighting and running certain industrial processes.

"We've been using electricity as a kind of convenience, shifting the enormous capital burden this places on society to the utility," said Thomas F. Widmer, vice president of engineering for the Thermo Electron Corporation, a manufacturer of highly efficient industrial furnaces and other energy-related equipment. "But," he added, "I think the market is now starting to recognize that this is a no-win game."

Indeed, these days many individual utilities do seem to embrace the idea that the nation must move into an extended period of lower electricity growth. Incapable of raising the money they need to build new power plants, once-hesitant companies have decided that taking steps to trim demand and finding ways to meet more of the demand with their existing power plants may offer the only way out of their bind. Many have adopted such reforms as time-of-day prices—charging less for power during off-hours, when a lot of generating capacity is idle—while others have offered their customers low-cost loans to pay for insulation and have made other investments to reduce demand.

There are limits to how much such policies can accomplish, of course. Since domestic sources of oil, and to a lesser extent gas, do not meet all the demand, forcing the country to import both, even the energy analysts who are most bearish on the outlook for electricity concede that in the long run only a limited amount of substitution can occur. Most seem to believe that, regardless of how low the growth in electricity may go, demand for it will have to outpace that of oil and gas.

"The way we are going to replace, as opposed to conserve, oil is through electricity," commented Milton Russell, an analyst with Resources For the Future and a co-author of that group's recently published study, "Energy in America's Future."

In an interview, Mr. Russell predicted that, as oil prices rise in the decades ahead, electricity prices will grow steadily cheaper in comparison. The reason, he said, is that coal and uranium, the only two fuels that can be expected to increase their share of the utility market, will not rise in price as quickly as oil will.

But many energy analysts, including Mr. Russell, think oil and gas consumption in the United States is now in the decline. Thus, electricity growth could even be zero, and it would still surpass that of oil.

THE EFFICIENCY FACTOR

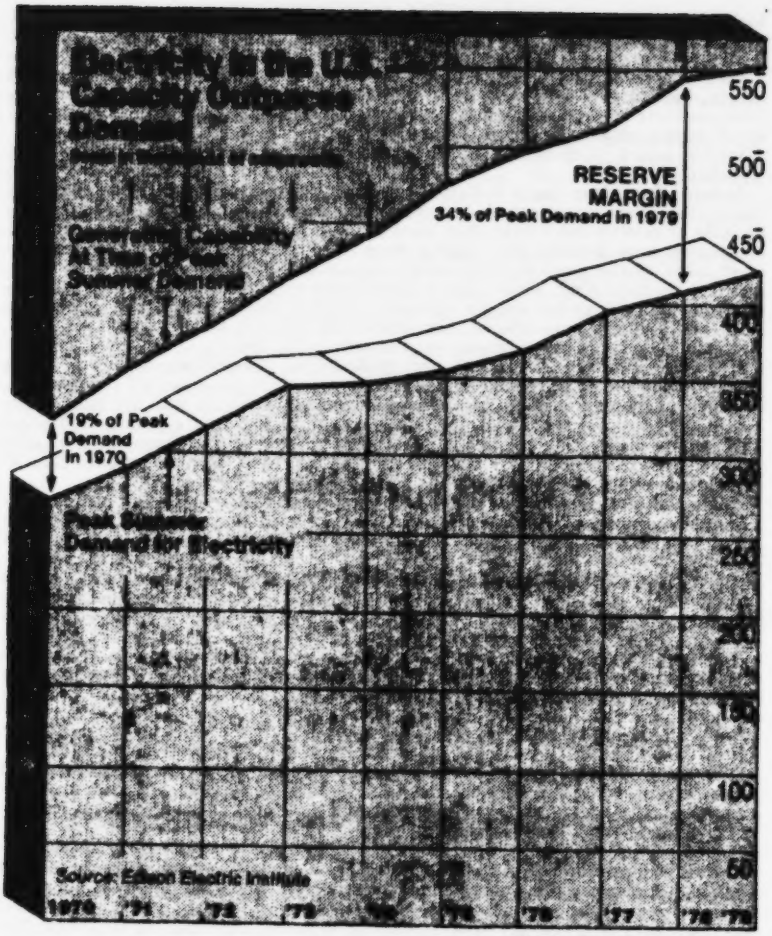
The analysts who expect very low electricity growth in the decades ahead stress, moreover, that substitution is not the only factor that will moderate consumption. The other, perhaps even more critical one, they say, is efficiency—doing the same task with less power.

One key contributor here could be the ubiquitous electric motor, which accounts for approximately 58 percent of all the electricity consumed in the United States, according to the Energy Department. Engineers note that, over the years, while energy was cheap, motor manufacturers gradually skimped on windings—the heart of the motor—to save copper, significantly lowering its efficiency. But now, with the price of electricity so high, product designers say it is worthwhile buying motors with better windings; despite the high cost of copper, the more costly but more efficient motor can save enough power to pay for itself.

Even more promising are advances being made in motor drives, the devices that control motors, particularly those in industrial applications. Electronic versions are now coming on the market that promise to cut power consumption by half.

Efficiency improvements are also possible where the power is generated, energy analysts say. These would allow utilities to generate more electricity without a corresponding increase in fuel consumption.

For some time, utilities have been working with more complex power generating cycles—so-called combined cycles—that offer considerable increases in efficiency. In addition, they have begun to experiment with whole new approaches such as fuel cells, which convert fuel directly into electricity without combustion. And other advanced ways to make power from conventional fuels are on the drawing boards.



The New York Times / April 6, 1980

Mr. WOLPE. It reads at the top:

A fundamental change is apparently taking place in the Nation's appetite for electricity. Since 1974 Americans have been using far less electricity than the utility industry had expected, and now some analysts expect the rate of growth to fall even further in the future."

Now, another point in the article reads:

Last year electricity consumption rose only 2.8 percent in this country, down sharply from the 7 percent annual rate of growth that the industry routinely experienced until the early 1970's. So far this year, consumption has actually dropped by 1.4 percent.

Now, are the numbers that I indicated in this article, are they challenged at this point?

Mr. GREINER. I cannot challenge them. I could go back and look at this.

Mr. WOLPE. Yes.

Mr. GREINER. We will go back and check the numbers.

Mr. WOLPE. Thank you.

Mr. GREINER. Yes, sir.

Mr. WOLPE. The article also quotes Roger W. Sant, director of the energy productivity center of the Carnegie-Mellon Institute of Research. "I suppose 3 percent growth is now the conventional wisdom, but my guess is that it will stlil be quite a bit lower than that."

Now, later on, there is a reference to an ideal scenario from the standpoint of the utility industry to be 4 to 4.5 percent a year.

Could you indicate when, or what the economic growth rate that you assumed as the basis, the 4 to 4.5 percent of the figure you mentioned earlier?

Mr. GREINER. The economic growth rate that corresponds to this?

Mr. WOLPE. Yes.

Mr. GREINER. Well, the number——

Mr. MCCORMACK. Why don't you submit that for the record, Mr. Greiner.

Mr. GREINER. Yes. I don't have the number with me at this time.

Mr. MCCORMACK. Thank you.

Mr. WOLPE. Yes.

[The above-referred information to be furnished the committee follows:]

EEI is forecasting a rate of growth in output of 2½ percent for 1980, while the peak load increase is expected to be at a higher rate, perhaps 3½ percent, if normal summer weather is experienced. This assumes that economic growth for the year will be positive, but less than the 2.3 percent increase in GNP recorded in 1979.

Mr. MCCORMACK. Are there any other questions?

Mr. WOLPE. Yes.

Mr. MCCORMACK. Proceed.

Mr. WOLPE. Generally what is the industry benchmark for the generating capacity that should be held in reserve?

Mr. GREINER. Generally it is 20 percent. This depends on what size of generating capability you are talking about. This is somewhat flexible.

Mr. WOLPE. I recall earlier when I was involved in the utility regulation area at the State legislature in Michigan, that the benchmark was 15 to 20 percent.

Mr. GREINER. There is a range, depending on the size of the generating capability that you have and the source that you are using.

Mr. WOLPE. According to that New York Times article:

Indeed, nationwide, the industry has twice as much generating capacity in reserve today as the backup of 15 to 20 percent that it has traditionally deemed a prudent margin of safety.

Is that accurate?

Mr. GREINER. In some areas of the country that is not accurate.

Mr. WOLPE. As a national statistic is that accurate, Mr. Greiner?

Mr. GREINER. As a national statistic it is probably right. But you have to look at the individual areas of the country because you can find difficult areas where the capability is not enough to supply this.

Mr. WOLPE. The numbers that you used eariler were also referring to national averages and to national growth. So, should we use the same standard to be consistent?

Mr. GREINER. They are not consistent. I am talking about the national average. So are you. But when you get down to the power pools in particular areas, then you have to look at what the capability is for that particular region.

Mr. WOLPE. Would it not also make sense that, as you are talking about these nationally, that there are some parts of this country where that projection is much lower or is much higher?

Mr. GREINER. Yes.

Mr. WOLPE. Is that correct?

Mr. GREINER. Yes.

Mr. WOLPE. One of the things that was fascinating when we got into the area of the load growth projections in Michigan was that the utilities consistently had overestimated the load growth projections. I think, more important, was that it was those projections that were used as the basis for instruction programs and for rationale for the rate increases to expand the earning capacity and investment for the plant. The load growth projections, in fact, are the key to the utility justification for higher rate increases to facilitate a construction program. Is that not an accurate description?

Mr. GREINER. In all fairness, it is very difficult in this day and time to project the needs in the future because of the conservation efforts which some people are making and because of certain costs and price mechanisms that are happening; also the shifting of energy. It is extremely difficult today.

In the past, before 1973, and the first Arab embargo, it was fairly simple. We knew approximately what was happening in the field. Our projections at the time were very good. But from 1973 on, it has been an extremely difficult thing to do.

Mr. WOLPE. I guess what I am trying to understand more clearly is, why should we assume that the utility load growth projections will be any more accurate in the future than they have been in the past?

Mr. GREINER. That is something that you have to take on faith, just like you do in saying that we try to be safe rather than sorry. I think probably that is the reason. If you say we are a little high, that is probably true. We'd rather be on the high side than the low side. It is very difficult to say, "Gee, we missed that one and we need another plan."

Mr. WOLPE. Has the Institute taken a formal position with respect to the question of peak load pricing?

Mr. GREINER. We have not.

Mr. WOLPE. Is there a reason that you have not?

Mr. GREINER. We've been doing a study at the request of the NERA group to determine where the peak load pricing actually fits. There are certain areas where it is different from other parts of the country. You might say that the jury is still out as to what the recommendation ought to be. The study has taken several years. We are not quite finished with it, Mr. Chairman.

Mr. WOLPE. Have you a timetable for the completion of that study?

Mr. GREINER. The completion, I believe, is the end of this year.

Mr. WOLPE. So, by the end of this year, you will announce a position to support or oppose the concept of peak load pricing?

Mr. GREINER. It depends.

Mr. WOLPE. On what?

Mr. GREINER. It depends on the area of the country. I don't think that you can say that for the whole country, you need peak load pricing.

Mr. WOLPE. Why should the advantages of peak load pricing be dependent upon the region of the country?

Mr. GREINER. There are different peaks and different valleys.

Mr. WOLPE. Why should the concept be different?

Mr. GREINER. Why?

Mr. WOLPE. Why should we assume that, somehow, the idea that we can discourage energy consumption and peak demands by higher pricing and that it is not applicable across the country?

Mr. GREINER. You can shift power between regions. In doing so, you have to be very careful whether you support peak load pricing in one particular area.

Mr. WOLPE. Could you give an example? I am trying to understand this.

Mr. GREINER. There are areas of the country. For example, in New England, basically, it has a summer peak. The whole pool in that region has a summer peak. There are utilities in that particular region that have a winter peak. The electric load profiles are far different.

You can take the Green Mountain Power Co. Their load profile as compared to that of Boston Edison Co. is far different.

Mr. WOLPE. Why would it still not make sense, assuming this, that you could discourage energy consumption by differential pricing?

Mr. GREINER. In the power pooling arrangement, you can shift the power between one area and another. Generally, I think utilities would support peak load pricing. I cannot say that all of them would.

Mr. WOLPE. That is some progress. Thank you.

Mr. MCCORMACK. We have three more witnesses to hear from yet.

Mr. WOLPE. As to insulation, the data that you had referred to indicated that 20 percent were very poorly insulated homes. You said 60 percent were well insulated, or at least better than the other forty percent.

Now, what is the study upon which those data are based or drawn?

Mr. GREINER. This is data that 've seen in studies from insulation manufacturers that have contracted to determine what the market looks like. This is data they supported.

Mr. WOLPE. Would you submit those studies for the record, please?

Mr. GREINER. If I can get a release.

Mr. MCCORMACK. The study is by the Owens-Corning Fiberglas Corp. We should go directly to them rather than indirectly.

Mr. GREINER. I'd rather not release it. Let them release it.

Mr. WOLPE. It is helpful to know the source.

The Standard Oil Co. performed studies, the thrust of which is that homes that are well built by conventional standards could use between 50 percent and two-thirds less energy in heating those homes than is presently the case. That is, if they were properly insulated. Have you seen those studies?

Mr. GREINER. Yes. I think that is a little high. In a study at Princeton, they took some townhouses in a particular region of the country that were unusual in the building construction trade. From what I can understand from it, the average there, if you took the whole United States, I guess about 40 percent would be a better figure than the one

that they are talking about there. I think that they are a little ambitious.

Mr. WOLPE. You referred to the legislation as being duplicative. Are you referring to the thrust of the legislation, that it would amalgamate the existing grant programs and put them into one that is more efficiently coordinated area? Is that what you mean?

Mr. GREINER. No. We have no objection to putting them into one place. There are others in place out there. They are doing things. This pancakes on top of this.

Mr. WOLPE. The ones out there right now are the ones that are being brought together.

Mr. GREINER. That is not the way I read it.

Mr. OTTINGER. If I might say this for a second.

Mr. WOLPE. Yes.

Mr. OTTINGER. I misquoted David Freeman, the Chairman of TVA.

I now have before me his remarks before the Kansas University, Kansas Power & Light conference on solar energy and utilities, May 11, 1980. He doesn't make a projection with respect to the future demands.

What he does say is that, in the future that the utilities should turn to conservation and solar and cogeneration. This is to provide an equal amount of power. It may be expected from central generation.

That makes a very interesting analysis of the benefits of this.

Mr. Chairman, I would ask unanimous consent that the full remarks appear in the record.

Mr. MCCORMACK. You will prepare them for the record, Mr. Ottinger?

Mr. OTTINGER. Yes. I also wish to apologize for the misinformation.

Mr. MCCORMACK. Thank you.

Mr. OTTINGER. We will provide this for the record, Mr. Chairman.

Mr. MCCORMACK. All right.

Mr. OTTINGER. Thank you.

Mr. MCCORMACK. Any further questions?

Mr. WOLPE. No.

Mr. OTTINGER. Nothing.

[A prepared statement by S. David Freeman, Chairman, TVA; and additional answers to questions asked of Mr. Greiner follow:]

REMARKS BY S. DAVID FREEMAN, CHAIRMAN, TENNESSEE VALLEY AUTHORITY, BEFORE THE KANSAS UNIVERSITY/KANSAS POWER AND LIGHT CONFERENCE ON SOLAR ENERGY AND UTILITIES, TOPEKA, KANSAS, MAY 11, 1980

I am especially pleased to be addressing this group today because I am convinced that the electric utilities of this country have a vital role to play in conserving energy and in harnessing the sun. I am equally convinced that by doing so utilities can improve their own financial situation now and in the future.

I have come to this conference in the heartland of America to recommend a new course for the electric utility industry. The central station grid system is here to stay but in considering options for future growth, decentralized energy must be given equal billing. Conservation, solar, and cogeneration can save our customers money, lessen the burden of building new plants, and reduce the risk of catastrophic future blackouts if only we offer these alternatives our support.

In proposing this commitment, I am under no illusion that decentralized sources can provide a quick fix for the financial difficulties now confronting many utilities. Inflation, high interest rates, stagnant economic growth, and the momentum of past decisions have combined to endanger the viability of an entire industry.

If electric utilities ignore the decentralized options they will find themselves on the horns of a dilemma: They can either continue to expand solely by financing large generating plants at rapidly increasing costs that endanger their economic stability, or they can call a halt to construction programs at the risk of blacking out the future economic growth of their regions.

My message today is that another alternative is available. We can control demand growth and provide for the future at the same time by actively encouraging the development of unconventional energy initiatives which can dramatically reduce the number of large plants we need to build. This approach has a number of advantages. It is almost invariably cheaper than building more generating units. It provides greater flexibility in planning because of the very short lead times involved. And it increases reliability because decentralized energy sources are by nature dispersed and cannot all fail at once.

Some critics charge that decentralized energy is an inadequate replacement for central station electric power generation. They tout the convenience, manageability, and economies of scale resulting from large power plants. They question the amount of power than can be displaced by decentralized sources. And they challenge the wisdom of utility involvement in the unconventional role of providing energy services.

These arguments may seem attractive to those looking for reasons to continue with business as usual. The dinosaurs did the same until changing conditions finally wiped them out in favor of smaller, more adaptable animals. Today, we in the utility business face similar challenges and similar opportunities —if only we can learn to look beyond the bus bar.

If an altered physical climate proved the downfall of our ancient reptile cousins, we in the utility business are most threatened today by a changing economic climate. Costs are rising rapidly. Nowhere are they going up more rapidly than in the area of new power plant construction. Plants that 10 years ago could be built for $150 a kilowatt are now costing 10 times as much.

Raising the capital needed to build new plants is becoming an increasingly burdensome task. We must not underestimate the effect of financing costs on our ability to keep building for the future. As this group is well aware, central station power production is the most capital-intensive industry in the country. When capital begins to dry up, as it has in the past several years of extremely high rates, the economics of central station generation are increasingly called into question. For utilities with relatively low bond ratings, capital could become unavailable.

But cost is not the only factor making it harder and harder to continue the course of the past. We must admit that even with the money we can no longer be sure of future demand. The days of regular 7-percent annual demand growth are over for the U.S. utility industry. Current projections run at 3 percent or less. More important is the uncertainty of any projection.

With a recession on our hands, many utilities face not a shortage but a surplus of generating capacity, thanks to the over-ambitious growth projections of the early 1970's. But there is a great danger we may overreact. We are building for the loads in the 1990's, and the Nation dares not plan for economic stagnation. Even with an all-out conservation and solar effort, we will need more generating capacity. And certainly new coal and nuclear plants will be needed if we are to get off of imported oil.

In the absence of any sure way of predicting future electrical demand, we are all gambling to a certain extent with our construction programs. If we are to trim our construction programs—and the rate increases that they require—the industry needs a substitute for oil-fired turbines that can be installed on short notice in case we run short. We can only limit our central station construction if there is a way to add capacity quickly. Decentralized energy systems can fill that gap. And they can do so at much lower costs than larger plants that take 8 to 12 years to complete.

In addition, decentralized technologies can actually improve the reliability of the systems in which they are located. They are much less likely to fail collectively than a single large generating unit of equivalent capacity. And given the uncertainties surrounding the future of nuclear power, any additional diversity that can improve reliability should have a high priority.

A growing number of enlightened utility executives are recognizing these advantages. This conference is one sign of that trend. Another is contained in a recent industry survey showing that the number of utility-sponsored solar energy

projects has grown by 24 percent from 1979 to 1980. And interest in energy conservation programs by utilities is also on the rise.

It is useful to remind ourselves that people require end-use services, not electricity as an end in itself. Heat, light, cooling, mechanical work, and numerous other functions are what we seek when we hit that switch. If utilities can find cheaper and more available ways of providing these energy services, they would be well advised to promote rather than resist them.

The Tennessee Valley Authority today is in just such a position. We have committed ourselves to programs that could produce the equivalent of as much as 6,000 megawatts of capacity from decentralized sources over the next 10 to 15 years. We are not embarked on this course of action out of altruistic devotion to alternative energy. We are doing it because these innovations will cost our 2.7 million customers less in the long run than building another 6,000 megawatts of central generating units.

Basically, TVA and in turn all of its consumers receive two kinds of benefits from displacing the need for electricity from its own generating units. First, we reduce the need to use the less efficient and more expensive existing power sources, such as our oil-fired gas turbines, imports from other systems, and our least efficient coal-fired plants. Second, we reduce the need to build additional plants at even higher marginal costs. Together, energy-saving and load-shifting devices can increase our system's efficiency and hold down rates.

In attempting to achieve these benefits, we have turned to the concept of the power credit. Its intent is to give our customers an incentive to invest in energy alternatives that will save everyone money. The theory is simple: that customers should receive some benefit from whatever actions they take to reduce the load on the TVA system. And by providing the credit in the form of low-interest financing, we help all of our customers achieve these benefits. As long as we've got to pay more to build a kilowatt of new capacity than we did for the average of our system's 28,000 installed kilowatts, we can save money by investing in alternatives that help to hold down demand growth.

That's why we have embarked on a comprehensive program of zero- and low-interest loans, subsidies, and credits to encourage the reduced consumption of TVA power, especially at times of peak usage. These funds come out of our power revenues because they represent the most cost-effective investment for all our customers.

With so much going for them, it seems surprising that decentralized technologies haven't attracted more interest from utilities aiming to hold down their costs. I suspect part of the reason is just plain inertia. When it came to power plants, bigger was better for so long we couldn't conceive of the trend reversing itself. Now it finally has, with stunning speed.

Furthermore, utilities have been barred by law from direct involvement in financing residential, conservation, and solar projects for homeowners. This barrier should be removed, and indications are that it soon may be.

The major constraint on utility involvement in decentralized energy has been the inability of most utility organizations to think beyond the bus bar. I know, because that was essentially the situation at TVA three years ago. It has not been easy to develop that capability, but we are now trying. And we are succeeding in demonstrating how small-scale energy technologies can be integrated both into utility planning and into an actual grid system. Admittedly, we are still learning but I believe others can learn from our successes and our mistakes to date.

Let me briefly outline some of our programs:

HOME INSULATION

TVA's home insulation program has conducted detailed energy audits of more than 200,000 homes. We have made over 93,000 interest-free loans of up to $2,000 for weatherization measures, and many homeowners have followed up with their own money.

SOLAR WATER HEATERS

TVA is expanding its solar water heater program from an initial 1,000-home pilot project in Memphis Tennessee, to 11,000 homes in Nashville and nearby counties. Quality assurance and front-end- low-interest loans are essential to the program. Solar heaters are now providing inflation-proof hot water for more than half of consumer requirements while converting the supplemental electricity needed to an offpeak load.

WOOD HEATERS

We are expanding TVA's wood heater program from an initial 1,000-heater experiment to a 6,000-heater demonstration. Interest-free loans of up to $800 per installation cover the cost of modern, air-tight wood heaters that have proved extremely popular in the areas where TVA loan money has been available.

PASSIVE SOLAR HOMES

TVA is building a total of 44 passive solar demonstration homes across the Tennessee Valley and more are in planning. They are designed to reduce heating needs by up to 70 percent, at only slightly increased construction cost. In addition, we are developing 130 prototype passive modular homes in cooperation with modular home manufacturers. These homes will be on the market within a year to provide low-cost, energy-efficient housing in the $30,000 to $40,000 range.

COGENERATION

TVA is encouraging private industry to cogenerate electricity and steam for its own purposes and to sell surplus power to the TVA system. Under an experimental pricing arrangement, we are offering to pay 135 percent of TVA's wholesale demand and energy charge for the onpeak hours and 85 percent of that charge during offpeak hours. This appears to be an especially promising way of obtaining some of our region's future power requirements with greater energy efficiency and at lower cost.

LOAD MANAGEMENT

TVA has established a special load management branch with the goal of substantially reducing onpeak demand. Our largest load management effort is the air-conditioning cycling program, in which remotely controlled switches are to be installed on the air-conditioner compressors of 50,000 power consumers. We are using a short cutoff period of 7½ minutes out of every half hour, and we are offering customers a $5 per month credit on their power bills as an incentive to participate. Positive load control of this kind has proven successful elsewhere, and we have high hopes for it in the TVA region.

Through programs such as these, TVA is moving into the age of decentralized energy supply. Unfortunately, however, there is still considerable debate nationwide over the wisdom of allowing private utilities to become directly involved in financing and installing decentralized energy systems. This concern, which I believe to be misguided, was expressed in outright prohibition of utility involvement in the National Energy Act. As you probably are aware, legislation that would effectively repeal this prohibition is pending before a congressional conference committee.

Utilities should be free to participate actively in conservation and other decentralized energy programs. In fact, there is a strong argument for requiring them to do so.

Utilities provide a ready-made institutional arrangement to get the job done. They touch virtually every household in the country, they can raise capital more effectively than their customers, they are large enough to provide quality control and "one-stop" energy shopping for consumers, and they can be held accountable through regulation at the state level.

I am not suggesting, however, that utilities go into the insulation or solar collector business. Solid information, front-end money, and quality control are all that's needed.

Utilities stand to benefit just as much as their customers from decentralized energy. We still have an obligation to make investments to avoid power shortages. If we are to combat inflation and avoid brownouts, then utility capital must be invested in the lowest-cost options.

As utilities begin to invest beyond the bus bar, we must apply the same rigorous economic analysis as in the rest of our business. It cannot be done haphazardly. Utilities are going to have to undergo a revolution in outlook, in order to evaluate investments in insulation on a truly comparable basis with investments in nuclear power. This may prove a wrenching change, but it will also be a healthy one.

For too long, electric utilities have viewed themselves merely as suppliers of electricity and collectors of revenue. In the process, we have forgotten the views

of the inventor who made our existence possible. I think it is of more than historical significance that Thomas Alva Edison was convinced utilities should supply "light" and not just kilowatt hours.

Electricity is only a means to an end—we need to focus on the end-use. For the last few years, TVA has been returning to its roots as an agency devoted to the welfare of an entire region. Electric utilities everywhere would do well to rediscover their own roots in that insight of Edison's. They would find in it ample motivation to give decentralized sources a central role in their energy future.

PAUL C. GREINER, Vice President

EDISON ELECTRIC INSTITUTE The association of electric companies

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June 9, 1980

The Honorable Mike McCormack
Subcommittee on Energy Research
and Production
Committee on Science and Technology
Suite 2321 Rayburn House Office
Building
Washington, D. C. 20515

Dear Mr. McCormack:

Enclosed are the Institute's replies to the additional questions you submitted regarding the Energy Management Partnership Act. I hope they will be useful to you, and I appreciate very much the opportunity to make these additional comments.

Sincerely,

Paul C. Greiner

PCG/vg
Enclosure

Supplemental Questions and Answers for Mr. Greiner

Edison Electric Institute

Energy Management Partnership Act

Hearing held May 13, 1980

1. What problems do you foresee for interstate utilities and those sharing interstate power grids if all states must do federally mandated energy supply and demand planning? Is additional planning necessary?

The imposition of an additional set of planning constraints on top of existing physical, environmental, and economic limitations would only increase costs. State planning, because of its likely political overtones, would distort the development of energy facilities and in those cases where electrical networks cross state frontiers, planning in one state could force other states into taking separate but not necessarily complementary actions. For example, if a state with more numerous plant sites did not permit them to be developed at a rate adequate to meet the reasonable requirements of the entire interconnected network, the other states served by the system would be obliged to develop less economical or less safe sites at higher costs. Smaller, more numerous facilities would mean higher operating costs per unit of output and diminish the economies of transport in the case of coal burning plans.

In the area of electricity supply, it should be understood that there is already a considerable state influence on the demand side. This influence is exercised through the rate and other regulatory policies of Public Utility Commissions. Through pricing policies, commissions can encourage or discourage overall use, specific uses, and the particular time of use. They also influence decisions about the types of generating plant to be built via the ratemaking policies they pursue. For example, by permitting CWIP to be included in rate base a PUC makes it more feasible for a utility to build a more capital intensive, but also more efficient plant.

Additional energy planning is not needed. What is needed is better coordination of policies within a state affecting energy. Too often policies conflict and result in either a cancellation of intended effects or in prolonged delays before energy companies can implement decisions. These delays, are of course, costly. A classic example of such conflict was the problem created by certain Northeastern Atlantic coast states which, on the one hand, refused to allow coal burning, but, on the other, resisted exploration for natural gas deposits off their shores. Likewise, nuclear power projects were made all but impossible to carry out. The result is reliance on imported oil.

2. What are the pros and cons of federally financed intervenor funding of conservation advocates in public utility commission activities related to building central station power?

On the positive side, federal funding of conservation advocates may allow a public dialogue to develop on matters such as conservation and alternative energy supplies. Such a dialogue may serve to generally promote such concepts.

On the negative side it can be argued that a discussion of such concepts within the Public Utility Commision (PUC) framework may be disadvantageous to both the utility, the PUC, and the customers of the utility. Public Utility Commissions have often been criticized for failing to make important decisions in a timely manner; bringing in yet another interested party will almost certainly result in even further delays.

In addition, some conservation advocates propose concepts which go beyond energy supplies, extending to an advocacy of zero growth, simpler lifestyles, elimination of nuclear power, etc. Often these advocates are in reality proposing political or philosophical concepts only distantly related to specific energy issues. If, via the vehicle of federal funding, they are given a forum in the regulatory process, they will be expected to use it to their advantage. For example, an anti-growth conservation advocate may use a power plant siting issue to espouse philosophy and to disrupt or delay to the extent possible the siting of the plant anywhere, a course of action that may leave the utility and its customers short of power in the future.

3. Do you feel that states are a reasonable supply and demand planning unit or should energy planning now being done at the federal level continue to be done there?

States are not, overall, good energy planning units because most energy supplies do not originate in the states where they are consumed and most energy using devices are not manufactured in the states where they are utilized. However, buildings, a major category of energy user, are unique to the state and its climate. They thus represent an area for effective conservation planning at the state level.

4. If state energy planning funds for supply, demand and emergency planning are to be split among energy conservation, renewables energy extension service and other activities, is a 70/10/20 split reasonable? What percentage would you devote to "other", or are the energy situations of the states too diverse to set a percentage?

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Energy conservation, especially in building construction, and energy information extension work would appear to be the areas where funds could most usefully be concentrated. The rubric "other" is too general for a standard percentage allotment across states. If anything, a maximum percentage might be made standard.

5. Do you feel energy from breeder, fission and fusion reactors should be acknowledged as renewable under this legislation?

The conventional thermal reactors that are now being used commercially are fission reactors. They are fueled with low enriched uranium and the fissionable atoms are gradually consumed by being converted into other elements and isotopes. Such reactors require the addition of fissionable atoms on a periodic basis even when the energy values of the spent fuel are recovered and recycled. Thus, thermal reactors should not be considered as a renewable energy resource.

On the other hand, fast breeder reactors, which are also fission reactors, have the ability to produce more fissionable atoms than are consumed in operating the reactor. Since the supply of fertile uranium atoms that can be converted to fissionable atoms in breeder reactors is very large (many centuries worth) and more fissionable atoms are produced than are consumed in the process, breeder reactors should be considered a renewable energy resource.

Fusion reactors are a hope of the future that have yet to be demonstrated on a controlled scientific basis. However, the fuel for the fusion reactor concept is an isotope of hydrogen of which there is essentially an unlimited supply within the world's oceans. The quantity of this fuel is so large that if all of the energy used on earth for the next 1000 years were produced from fusion reactors, the decrease in the basic fuel supply would be undectable. Thus, because the basic fuel resource for fusion is so large, fusion should be considered a renewable resource under the proposed legislation.

Mr. McCORMACK. I thank you very much.

Now, Our last three witnesses are a panel composed of the mayor of Springfield, Mo., Hon. Paul Redfearn, Hon. John Hutchinson, mayor of Charleston, W. Va., and Mr. Mike Grainey, Deputy Director, Department of Energy, State of Oregon.

I want to congratulate you on your patience in waiting to testify today. I know how difficult it can be for you having to wait for the other witnesses to testify. I hope the dialog that has gone on with those witnesses today will be helpful to you in your perspective.

We have your testimony before us.

You can make your presentations informally if you wish. You can summarize the points that you would like to make. Then we shall have a question and answer session.

Who is prepared at this time to go first?

Mayor HUTCHINSON. I will go ahead.

Mr. McCORMACK. Please proceed.

STATEMENT OF HON. JOHN HUTCHINSON

Mayor HUTCHINSON. Thank you very much for allowing us to appear before you today.

As you said, Mr. Chairman, our testimony has been submitted.

Mr. McCORMACK. Yes.

Mayor HUTCHINSON. There are just a couple of remarks that I have.

Mr. McCORMACK. Proceed.

Mayor HUTCHINSON. The cities are capable of a leading role in the energy conversation and development battle that is the key to our future.

Mr. McCORMACK. Would you please draw the microphone toward you. You have to speak into it. They do not pick up very well, Mayor Hutchinson.

Mayor HUTCHINSON. We are the front lines soldiers in the moral equivalent of war. On our own, with limited resources, but unlimited ideas and enthusiasm, we have begun to build the urban energy record.

Many of us know the exciting developments in cities such as Portland, Seattle, and Davis, Calif. But in scores of communities around the country, cities are beginning to realize that they have no choice but to deal effectively with energy conservation and development.

As to the direct Federal-city relationship, Mr. Chairman, any program which emerges from this Congress ought to be based on a direct Federal-city relationship. The States have a role to play. And we can help them play it. But the energy problem can only be solved by focusing on where people live—in the cities.

We are not interested in, nor do we want to get involved in cream-skimming, rewarding the best cities by doling out of competitive grants. Rather, we want to establish that every city which has passed some basic threshold of criteria and commitment can get involved in a dynamic energy conservation program in partnership with the Federal Government.

As to development and implementation, funds should be made available for a wide variety of activities. Many cities are at the beginning stages of energy conservation and development. They will

require funds for planning, programing and capacity building. The cities that have exceeded that threshold can implement what they have designed.

As far as the struggle between HUD and DOE, we think there is a place for both agencies. We also understand Mr. Ottinger or the Subcommittee on Energy Development and Applications has developed a compromise between EMPA——

Mr. McCormack. Please draw closer to the microphone.

Mayor Hutchinson. This is equally between development and implementation. In other words, the compromise would create within the Department of Energy a 2-year competitive grant program divided equally between development and implementation, which would phase into a comprehensive energy block grant program in fiscal year 1983 run by DOE. This Ottinger compromise would also provide the consolidation as requested by the administration.

It appears to us to be a working format for moving forward in this very critical area.

As the May 15 deadline for passage of the new authorization legislation by the full committee draws near, we request the support of this compromise by all science and technology members.

Thank you, Mr. Chairman.

[The prepared statement, plus answers to additional questions asked of Mayor Hutchinson follows:]

UNITED STATES CONFERENCE OF MAYORS
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STATEMENT OF

THE HONORABLE JOHN G. HUTCHINSON
MAYOR, CITY OF CHARLESTON, WEST VIRGINIA

on behalf of

THE UNITED STATES CONFERENCE OF MAYORS

on

ENERGY LEGISLATION AND THE CITIES

before the

SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION

COMMITTEE ON SCIENCE AND TECHNOLOGY

UNITED STATES HOUSE OF REPRESENTATIVES

May 13, 1980

Mr. Chairman, my name is John G. Hutchinson, Mayor of the City of Charleston, West Virignia. I am here this morning on behalf of the U.S. Conference of Mayors, which is composed of the nation's cities with populations over 30,000. Within the Conference, I serve as Chairman of the Energy and Environment Committee.

The U.S. Conference of Mayors is grateful for the opportunity to review the local energy legislation pending before these Subcommittees.

This is the sixth time we have testified on energy legislation and the cities since December.

It is our third appearance before a Subcommittee of the Science and Technology Committee.

I cite these figures, Mr. Chairman, only to underscore how important it is to the nation's Mayors that we develop a federal-city partnership for energy conservation and energy development -- in this Congress.

Cities are capable of a leading role in the energy conservation and development battle that is the key to our future. We are the front line soldiers in the moral equivalent of war. On our own, with limited resources, but unlimited ideas and enthusiasm, we have begun to build the urban energy record.

Many of us know the exciting developments in cities such as Portland, Seattle and Davis, California. But in scores of communities around the country, cities are beginning to

realize that they have no choice but to deal effectively with energy conservation and development. Attached to my statement are brief summaries of how more than 20 cities currently approach energy conservation and development in their own creative fashion.

We can do more and better. That's what this hearing is all about.

Mr. Chairman, let me reiterate on behalf of the Conference that we support all forms of energy. We do not have the luxury to pick either energy conservation or energy development. Nor should we rest all of our hopes on a single energy source.

Mayors recognize the need to go forward on all fronts.

We support legislation which will provide cities with the capacity and tools to make the most appropriate energy decisions for that city.

There are several principles which we believe should guide the development of urban energy legislation as outlined below.

- Direct Federal-City Relationship. Any program which emerges from this Congress ought to be based on a direct federal-city relationship. The states have a role to play. And we can help them play it. But the energy problem can only be solved by focusing on where people live -- in cities.

• Block Grant Approach. The program developed should attempt to get as many cities involved in energy conservation and development as possible -- now, essentially on a formula block grant basis. Too much time and effort have been spent by cities who are sincerely interested in tackling energy issues in senseless competition among themselves for tightly restricted discretionary grants.

We don't want to get involved in cream-skimming, rewarding the best cities by doling out of competitive grants. Rather, we want to establish that every city which has passed some basic threshold of criteria and commitment can get involved in a dynamic energy conservation program in partnership with the federal government.

• Development and Implementation. Funds should be made available for a wide variety of activities. Many cities are at the beginning stages of energy conservation and development. They will require funds for planning, programming and capacity building. Other cities have passed this stage. The focus for them will be to implement what they have designed. Inclusion of diverse approaches makes sense and can only strengthen our efforts.

• HUD and DOE. The Conference of Mayors believes it is important to actively involve the Department of Energy and the Department of Housing and Urban Development in any program relating to cities and energy. Both Departments have strengths. DOE has enormous technical and technological

resources. These need to be made available for cities. They should be the agency responsible for the implementation and technology/application grant work. HUD's strength in community and economic planning and development, as well as its extensive field network, make it an appealing choice to run the planning and development aspects of the program. Obviously, each agency, in the areas where it is preeminent, will have to work closely with the other. This should not have to be impossible.

- The States. Any legislation in this area should require that each recipient provide evidence of consideration of and coordination with state plans and programs. Given the performance of most state energy offices to date, we believe this is sufficient. The cities require a bold effort in the energy area. There is a role for the states. The Administration's proposed Energy Management Partnership Act appears sufficient as a vehicle for consolidating various programs for which states have been given the lead. These programs, in their initial stage and now in their consolidated form, have never been intended to provide for extensive involvement and assistance of local government. They should not be mistaken for that now.

Mr. Chairman, the principles we have described have largely been incorporated into legislation known as the Community Energy Act, sponsored in the House by Representatives Markey and AuCoin. The nation's cities find the Markey-AuCoin legislation to be a comprehensive and coordinated approach for dealing with energy in urban America.

In contrast, we find the Administration's Energy Management Partnership Act to be a rather limited narrow approach. The consolidation of state programs under EMPA, which is its major purpose, poses no great objection to Mayors. To suggest, though, that creating yet another small demonstration program for cities to fight over will solve our energy problems is simply wrong.

Mr. Chairman, it is our understanding that during tomorrow's full Committee mark-up, that Chairman Ottinger of the Subcommittee on Energy Development and Applications will offer a compromise between EMPA and the Community Energy Act.

The compromise would create within the Department of Energy a two-year competitive grant program divided equally between development and implementation, which would phase into a comprehensive energy block grant program in fiscal year 1983, run by DOE. The Ottinger compromise would also provide the consolidation as requested by the Administration.

The Ottinger compromise appears to us to be a workable format for moving forward in this critical area.

As the May 15 deadline for passage of new authorization legislation by full committees draws near, we request the support of this compromise by all Science and Technology members.

Mr. Chairman, the U.S. Conference of Mayors appreciates the opportunity to share our views with you this morning and to be your partners as we struggle to fashion a program in this area acceptable to all parties.

We would be pleased to respond to any questions.

REPRESENTATIVE LOCAL GOVERNMENT ENERGY PLANS

ALBUQUERQUE, N. MEX.

As part of its community energy conservation program, the city of Albuquerque has a 15 member citizens committee appointed by the Mayor to advise him on all energy related issues. This committee has developed an 11 point plan for energy conservation, which will serve as the blueprint for an information program to city residents. In line with this program, the city has designated a display trailer to be used at public schools, which identifies a number of ways to conserve energy.

In other energy programs, Albuquerque is working on an evaluation of zoning ordinances to ensure solar access. It has also established a land-use policy to discourage additional sprawl by filling in those areas of the city not yet developed. The city has also been encouraging the use of low technology solar heating systems, and has two solar heated buildings,-one with a payback period on the system of 6 months, the other with a payback of less than 4 years.

ANN ARBOR, MICH.

The city of Ann Arbor has established an Energy Advisory Group composed of several employees of city departments, which provides technical and planning support to the energy coordinator for all city energy programs. The energy staff is now conducting building audits. Future programs will center around energy management for existing buildings, vehicle fleet, street lighting, employee awareness and information dissemination, and general contigency plans to deal with energy supply shortages.

Preliminary energy audits in 42 city-owned facilities are complete with summaries of energy systems consumption of fuel and electricity for the past year, energy systems capacity, and building structure characteristics and occupancy factors.

A total energy plan for existing city facilities has been prepared for the Mayor, City Council, City Administrator, and Department of Management Personnel. An energy management program has started to identify and classify all no-cost and minimal cost operation and maintenance changes which have the potential to save a minimum of 20% of building energy consumed.

ATLANTA, GA.

The City of Atlanta recently adopted a comprehensive energy management plan called Program for Atlanta to Conserve Energy (PACE). The policy and programs are designed to reduce energy consumption in all city government operations and facilities, and are expected to result in significant savings for the city, both in energy and dollars.

The PACE program commits the city to efficient energy usage throughout its government functions. The policy specifies that the City will set informal energy consumption goals, purchase energy efficient equipment and materials, use the most current energy conservation techniques, maintain and op-

state city buildings to consume minimum amounts of energy, conduct energy audits of all city buildings, promote and waste energy conservation systems, and pursue innovative use of alternative technologies.

Atlanta is sponsoring community awareness programs throughout the school system and through neighborhood planning units. In addition the city is working with the Georgia Power Company in conducting energy audits in city buildings and holding energy conservation seminars for city employees.

BALTIMORE, MD.

The city of Baltimore is already well known for its innovative approaches to energy conservation. In 1977, the Baltimore city school system was ranked as one of the leaders in energy conservation in Maryland. Since then, Baltimore schools have embarked on a further program of policy enforcement and equipment modification, which has resulted in a 6 percent ($300-400,000) reduction in energy costs in fiscal 1978. An 18-20 percent reduction ($1,500,000) in energy usage is projected for fiscal 1979, based on data for the first nine months of the year.

Baltimore operates the first commercial-scale waste-to-energy pyrolysis system which converts municipal solid waste to a low BTU gaseous fuel, with process steam sold to a Baltimore Gas and Electric Company district heating facility. A four-week test run processing 700-850 tons per day resulted in a daily average income of $4,300 from the sale of steam. The city is now considering the recovery of methane from existing landfills, and is in the data-collecting stage.

BIRMINGHAM, ALA.

In response to the energy crisis, the city of Birmingham established an energy committee with the task of developing methods to reduce energy consumption in city services and the community by 15-20%. The group is made up of 9 members of the community. At present the city is attempting to upgrade the building code to include energy conservation techniques. Also, in conjunction with the Regional Planning Association, the city has established an ongoing vanpool and carpool program, and is working on a computer match system for citizens interested in carpooling. The main focus of the citizens energy committee is to adopt a more energy efficient policy for city buildings.

BOISE, IDAHO

The most vital energy conservation program in Boise is the planned geothermal development in the city. The City of Boise's program to harness geothermal energy will heat eighteen city, state, Federal and private buildings, eight square blocks of an urban renewal area (the new Downtown Mall), and the campus of Boise State University heating a total of two million square feet of building space. The system will reduce fuel costs by 25 percent and save the equivalent of 24000 barrels of oil per year. A parallel program administered by Warm Springs Hot Water District will develop a separate geothermal heating system for residential areas. The total program costs will be $15 million.

Boise has two citizens' energy committees with about 75 members each, set up in conjunction with geothermal development and the Downtown Mall. One group focuses on transportation issues; the other on alternative energy sources, including conservation measures. The committees are very active, and meeting attendance is high.

In addition to the downtown geothermal program, Boise operates a carpool and vanpool matching system. Participants to date include five major corporations, and city, county, state and federal employees.

The downtown development has provided Boise citizens with a unique opportunity to learn about not only geothermal energy, but other energy conservation measures and alternative energy sources as well. The high interest in the community is reflected in the information requests to the city libraries, state library, and the city Geothermal Office. The city plans to produce a documentary movie about geothermal energy to serve as an educational and publicity tool for the general public, local government and private businesses.

CLEARWATER, FLA.

The city of Clearwater, Fla. began energy conservation efforts in 1975, focusing on two major consumption areas—city vehicles and street lighting. By 1977 the vehicle fleet program resulted in a 21 percent increase in fleet miles per gallon, saving 175,000 gallons of fuel ($60,000).

These programs were brought under centralized control with the creation of a city Energy Office in 1977. The Office set as its goal, reduction " . . . of the city's energy consumption by 25 percent without compromising the safety or health of the public or the efficiency of the city's employees." Program results include an estimated savings of $150,000 per year from the building retrofit and efficiency program—a reduction of 3 million kilowatt hours per year. The home energy audit program has been discontinued due to the loss of CETA workers who performed the audits, but during the program, 750 homes were audited. These homes averaged a use of 2000 kilowatt hours per month prior to audits, and reduced use by 15 percent as a result of audit improvements. A plan to convert to high pressure sodium streetlights is estimated to save another 9 million kilowatt hours per year.

DAYTON, OHIO

The city of Dayton has been actively involved in a community energy conservation effort since 1977. Dayton is one of 17 local governments in the United States chosen to participate in the Comprehensive Community Energy Management Program (CCEMP) sponsored by DOE. This program is designed to help local communities identify, evaluate and implement energy conservation methods and to manage local energy supply and use.

As a result of the CCEMP grant, Dayton was able to formulate a citizens committee of 22 members from all walks of life. The committee is subdivided into a steering committee and an action committee which discuss energy policy actions for both private and public groups, and will play a key role in the development of a comprehensive, long term energy policy.

There are two basic components of the program: energy auditing and projecting consumption levels for both public and private consumption up to the year 1988 to determine supplies and to prevent shortfalls.

In addition, the city of Dayton in conjunction with its congressional representative has established energy workshop seminars to discuss cuts and bolts techniques of energy conservation for citizens. Also the city has a mini-computer to centralize lighting in municipal buildings and schools.

DENVER, COLO.

The city of Denver is developing an overall comprehensive plan for city energy use. This plan when implemented will address the energy impact of all facets of city planning including zoning and land use. This plan also will address the development of a citizens advisory committee on energy. At present the city has an in-house energy committee, which is developing a plan for cutting back city government energy usage by 10 percent within each department. The city also has developed an extensive van pool program and is cooperating with the state government on a computer match system for citizens interested in carpooling.

GREENSBORO, N.C.

The city of Greensboro operates an employer-based carpooling system, which was initiated in November, 1977. Beginning with municipal employees, the program has now expanded to include major city businesses. In March, 1979, the city contacted the area's top 24 companies. So far, 17 companies have responded positively, with a range of from 54% to 68% of their employees expressing interest in participating in the program. Twelve of these companies are now carpooling, while the remainder are completing the computer matching process. These companies employ from 500 to 5,000 employees each. The city plans in the future to include smaller employers in the program, as well as employment centers such as the downtown area.

In 1977, the city initiated one of the nation's most effective home audit programs. City firefighters, already familiar with home construction, were trained by the local utility to conduct residential energy audits. Such an approach ensures much higher acceptance by homeowners without any diminution in fire protection or greatly increased cost to the taxpayer. The firemen collect the raw data, have it analyzed by the city's utility staff to determine what energy conservation measures are called for, and return in two to three weeks with the results of the analysis. Homeowners are also provided with a "how-to" booklet on energy conservation prepared by the city and a Tier from the Greensboro Jaycees explaining the civic group's insulation assistance fund for those who cannot afford to have the work done themselves. To date, 14,063 homeowners have been contacted, and 12% have accepted.

HARTFORD, CONN.

The city of Hartford has developed a comprehensive approach that touches all levels of municipal policy, including zoning, land use, transportation, economic development, and education.

Hartford established a citizens energy corporation hire and train unemployed city residents to retrofit existing structures (both city owned and private). In addition to the energy corporation, the city has set aside funds to create a community based economic development corporation that will manufacture and install solar energy collectors. Once the programs are in place the city expects to provide between 200 and 225 jobs for city residents. This effort will produce an added benefit of helping city residents lower their energy consumption and costs.

Also, the city is involved in an effort to minimize automobile traffic downtown. It is is considering the feasibility of closing a series of streets to cars. Only pedestrians, buses, and emergency vehicles would have access to those streets. Hartford also has had much support for its park and ride programs, designed to offer cheaper and faster public transportation than the automobile.

KANSAS CITY, MO.

Involvement of Kansas City citizens in energy conservation programs began in 1974 with "Operation Button-Up". During its two years of operation, the program was responsible for circulation of more than two million mail inserts with utility bills, development of a lecture kit and speakers bureau, production of several radio and television public service announcements, work with the Kansas City Star on a special energy edition, development of a fall home tour featuring energy conservation, placement of several articles in regional magazines on the benefits of energy conservation, and creation of a Button-Up kit that enabled homeowners to assess their own needs for home energy conservation.

Operation Button-Up has been followed up by several other programs directed to homeowners—the home weatherization program and two energy demonstration and conservation homes. The weatherization program improved over 1,395 homes by July, 1979, with an average investment of $450 per home. The program evaluation shows that average fuel

consumption has decreased by 21.95%, the average dollar savings per house is $71.61, and the average return on investment is 4.9 years. The demonstration homes are two older houses that have been retrofitted with energy saving appliances, insulation and other energy conservation measures to provide the public with testing of conservation features, training in "how-to" measures, and examples of the savings possible using energy conserving measures.

Kansas City also has an extremely successful carpool and vanpool program. A carpool matching program begun in 1974 elicited interest from one-quarter of the city employees. Vanpools were added in 1978. Five vans are operating at present. Also in 1978, a ride-sharing grant from the Department of Energy enabled the city to expand the vanpool matching program to area corporations.

LOS ANGELES, CALIF.

During the 1972-73 embargo, Los Angeles cut overall energy consumption by 20 percent under a voluntary cutback program. City conservation programs have since been enhanced. Monthly electrical consumption reports show some departments have decreased usage to under the rates during 1972-1973.

In 1978 and 1979, the Airport cut energy use to 7.5 percent below embargo rates. The Water and Power department was 15.6 percent below, and the Harbor department was 52.8 percent below. Other departments added new buildings but increased usage to only 6.3 percent above embargo rates.

Vehicle fuels consumption for the first nine months of fiscal year 1979 is five percent below the rate for the previous 11 months. Twenty-six vehicles are using gasohol, and the city is seeking to expand this program. Three buildings are to be dedicated shortly, all using solar systems: a firehouse (to be the prototype for all future Los Angeles firehouses); an office building; and a demonstration single family house.

LOUISVILLE, KY.

The City of Louisville has set itself the goal of reducing energy consumption by 6.8 percent by 1981 over the base year of 1978. Efforts to reach this goal include transportation programs and information programs.

Transportation programs include a 50 percent subsidy of mass transit fares for city employes, free parking lots for city employee carpools, and an innovative city bus system. The bus system includes double-deck buses to increase passenger miles per gallon. Ridership is up an estimated 18 percent over last year.

Louisville participates actively in the Jefferson County Energy Commission. The Energy Commission provides community residents with energy conservation information. Recent projects include a survey of local businesses to determine which had undertaken exemplary energy conservation measures. A list of those local businesses which have implemented energy conservation measures was distributed to citizens, along with estimates of energy savings. Awards were given for the most outstanding efforts. The Jefferson County Energy Commission also prepared a brochure listing all energy-related businesses (e.g., insulation sales and installation, solar products and installation), which has been distributed to the public. Other publicity efforts include an audiovisual program shown to several thousand people each year, radio and television talk shows on energy and an energy seminar co-sponsored by Indiana University.

METROPOLITAN MIAMI/DADE COUNTY, FLA.

Energy conservation efforts in Metropolitan Miami/Dade County, Fla., began in 1973-1974 in response to the gasoline crisis. The most significant program developed at that time was a gas rationing program, which remains in effect today. Under the program, coupled with increased maintenance and a switch to smaller city fleet cars, the city vehicle fleet gasoline consumption in 1978 was 27 percent lower than in 1972. A Comprehensive Energy Management Program (CEMP) was adopted in December, 1977, and the Dade County Planning Department developed a report, "Energy Conservation: Proposed Goals and Policies," for review by the Board of County Commissioners in July, 1979. The payoff for major planning efforts in Dade County comes in the form of electricity and gasoline consumption savings, as these are the two primary energy sources. In 1978 Dade County consumed about one-half a billion kilowatt hours of electricity. The conservation program put into effect in 1977 is estimated to have saved one hundred and thirty million kilowatts that year. This savings converts to 216,607 barrels of crude oil, or $3.9 million at the 1977 prices.

NEW ORLEANS, LA.

New Orleans began a moderately successful Energy Conservation Program in 1973. An Energy Management Program was subsequently mandated in 1978, and a Citizens' Committee for Energy Management was formed to assist in the planning for the Management Program. The City Energy Management Task Force has proposed a broad program that would encompass such areas as conservation, alternative energy sources, development of local unconventional energy sources (such as geopressurized natural gas), and such administrative policy areas as zoning and building codes and rate restructuring. The City of New Orleans has a municipal utility, New Orleans Public Service, Inc. (NOPSI), which can provide the kind of support for municipal energy management experienced by other cities with municipal utilities such as Seattle and Portland. NOPSI now provides the bulk of information on energy conservation distributed to New Orleans citizens, and offers a home audit service.

OAKLAND, CALIF.

The city of Oakland, Calif. operates a wide-ranging energy conservation programs, including a centralized maintenance facility for fire and police vehicles, a passive solar design for a new recreation center, exploring cogeneration, and using more open windows rather than air conditioning in city buildings. The most significant program is the retrofit of city street lights. The program involves converting the 23,543 lights in Oakland's system to high-pressure sodium vapor lamps from mercury-vapor lamps. While maintaining lighting levels in accordance with recommended standards, the new system will use 45 percent less electricity than the old (which comprised 70 percent of city electrical expenditures).

The total conversion to this new lighting technology will reduce the annual cost of the service 72 percent—from $2,040,000 to $562,000 per year. This is a savings of 17 million kilowatts per year.

PORTLAND, ORE.

The city of Portland has just passed a comprehensive city energy plan with a goal of decreasing energy use throughout the city by 20 percent by 1995. The projected savings from this reduction for the city and its residents is about $128 million a year based on current prices. The program itself was developed through a citizen energy policy committee composed of representatives from business, labor, industry, government and neighborhood groups. The city also developed information and education programs to notify citizens of the plan. Newspapers, radio and television were used for this outreach program, as well as a series of 33 briefing sessions throughout the city with neighborhood business, industry and others. This comprehensive plan will cover all areas of city planning which might impact on energy.

Besides this comprehensive city plan, Portland has a number of energy programs already in place. Life-cycle costing has been made a consideration in all purchasing decisions by the city government. Half of one-percent of the city's general funds and other special funds have been set aside for energy conservation investments—which currently yields about $700,000 a year for energy conservation projects on the part of city departments, such as better building insulation and a heat recovery unit for the city paint shop.

ROCKVILLE, MD.

The City of Rockville's city-wide energy conservation efforts have been supported by an Energy Advisory Committee which draws upon the pool of technical expertise available in the city. The Committee provides advice on all energy plans and proposals such as the consideration of methane recovery from city landfill sites and purchase of dual fuel cars for the city fleet.

The Rockville Energy Office operates an energy information center to respond to citizen inquiries as well as producing a newsletter column, a slide show on home energy conservation, and seminars for residents and local businesses. The office held an Energy Fair to coincide with Sun-Day to promote energy activities. Programs offered by the city include weatherization of low-income homes and home energy audits conducted by the local utility. The office is working in cooperation with the County on a vanpool program.

Current projects include an evaluation of energy conservation measures to be incorporated in the redevelopment of the town center, solar heating for city swimming pools, and development of a solar access zoning code. Present building codes are written to incorporate energy conservation features in new buildings.

SAN ANTONIO, TEX.

The city of San Antonio is developing mechanisms for coping with energy issues as a whole. A Comprehensive Residential Management Program (CRMP) is being drafted to include not only energy conservation and alternative energy sources, but solid waste disposal possibilities such as refuse-derived fuel and wastewater management issues. A proposal has been sent to the Department of Energy for support of a complete revision of building and zoning codes to encourage energy conservation and alternative energy sources through siting, solar access zoning, etc. Under this proposal, a citizens' energy commission would be instituted with the assistance of local university.

A major community energy education program is conducted by the city utility. In addition to supply information, the utility conducts audits of residences and commercial buildings.

The City provides a carpool computer matching service, and is adding a vanpool service as well. City employees receive subsidies for bus commute fares.

SEATTLE, WASH.

The city of Seattle is in the process of implementing perhaps one of the most advanced energy building codes in the country. This code is expected to result in an overall reduction in projected electricity usage of about 9 percent by 1990. A citizens advisory committee on energy usage has responsibility for recommendations to the city in energy management and planning. Seattle's municipal utility has a citizens advisory group as well. In light of possible heating oil shortages this winter, Seattle is in the process of developing contingency plans for actions the city can take to help residents affected by shortages and high prices of heating supplies.

Seattle also has developed a number of other innovative programs in the area of energy conservation and alternative technologies. For example, the city is leasing so-

lar equipment to the community through the municipal utility. There also are many other solar incentive programs and demonstrations. The city has developed a free ride zone in the downtown area to encourage residents not to bring their cars into the area.

ST. PAUL, MINN.

The city of St. Paul, Minnesota coordinates energy conservation efforts through a strong system of district councils—seventeen "mini-city halls"—which review and comment on all city functions such as licensing and zoning. The city has recently applied for a Department of Energy grant to revise the building and zoning codes to encourage increased energy conservation. The designation of appropriate lots for underground or solar construction now is conducted with the assistance of the district councils. The councils distribute energy conservation information, such as the results of the infrared thermography flyover conducted in 1977 to demonstrate the sources of heat loss in residential and commercial buildings in St. Paul. One of the district councils will be holding an Energy Fair this October, which will provide information on energy conservation and alternative energy sources. It will provide exhibitors a place to display and demonstrate energy conservation products.

The city has been encouraging energy conservation through several other means, including a vanpool program which is working through employers. The 3M corporation offered the first of these company-sponsored vanpool programs in 1973, which has grown to 100 vans serving more than 1,000 of the company's 10,000 employees. The city plans to complement the existing vanpool programs with a downtown shuttle which will ferry passengers from fringe parking lots to downtown work and shopping areas. The mayor rides the bus once a week as an example.

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June 17, 1980

The Honorable Mike McCormack
Chairman, Subcommittee on
Energy Research and Production
Committee on Science and Technology
U.S. House of Representatives
Suite 2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

Please find below answers to supplementary questions concerning the testimony of Mayor John Hutchinson of Charleston, West Virginia on behalf of the Conference of Mayors, before the Subcommittee on May 13, 1980.

Question 1: The 80/20 split between SMSAs and Non-SMSAs is a reasonable and fair division and is roughly comparable to other federal local efforts, including community development block grants, economic development, public transportation, general revenue sharing, as well as other program efforts.

Question 2: The 17 items recognized as part of the application for assistance are reasonable for small towns and cities. The Conference has discovered that in many cases, size is not a factor in determination of a city's talents in energy conservation and development. However, recognizing that generally speaking, technical resources will be available to a less extent in smaller cities, it is reasonable to expect that the Secretary shall have the power to waive one or more of the requirements suggested in the committee draft.

Question 3: The U.S. Conference of Mayors believes an annual program level for local government of $75 million is appropriate and would provide a wide-ranging, effective program beginning.

Question 4: The impact from the planning programs under subpart B of the staff draft would be to enable cities to take a hard look at their current energy management, begin to manage community-wide resources for energy conservation and development and put together a short-range and long-range approach to energy conservation and development.

Question 5: Under the Emergency Energy Conservation Act of 1979, energy emergency planning is concentrated solely at the state level. The U.S. Conference of Mayors believes that this should be a shared function between state and local governments. At our recent Annual Conference, we adopted policy in support of amending that Act to include a more specific role for local governments.

The U.S. Conference of Mayors appreciates the consideration of the Committee in this area.

Sincerely,

Leonard S. Simon
Assistant Executive
Director

LSS/pl

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STATEMENT OF HON. PAUL REDFEARN

Mayor REDFEARN. I'll try to be very brief. You have my statement for the record. Let me say that I think, from our viewpoint, from the local government level, that while it may be the Federal Government or the State government's plan. However, implementation is at the local level. We are the energy consumers.

Now, in the cities we do have a great interest in the conservation of energy because, when we spend money on energy in my community and others, this money goes out. It does not create jobs.

We strongly support the Community Energy Act. We believe that funds should come as much as possible to the cities directly from the Federal Government. Moneys that go to the State sometimes get lost in a bureaucracy of plans and restudies. Then nothing gets done. However, we can and do, actually implement energy programs at the local level. We believe that it should not be a program that sends money to the cities without any assurance that it is wisely spent. The taxpayers will not stand for this any longer. We believe that there must be some threshold level where the community has shown good faith planning and initiative.

Now, in energy conservation in the future energy planning, sometimes there is modest support, $150,000, maybe $200,000, and that may be all that it takes to get a community working together to make the type of conservation efforts and supply efforts that need to be made.

My communiy owns its own utility. We are on both sides trying to conserve and supply the energy. We believe that the funding level should be at least 50/50. It should be 50 to the States and 50 to the local communities. It goes without saying that the amount that is authorized is probably inadequate. But in the face of budgetary constraints that all of us in government are facing, these are probably realistic figures that are proposed, and we think that it is important that the Congress realize that the citizens are ready to conserve energy.

As pointed out by the utilities representatives, they are the planners. They are capable of planning. Where they don't know how to plan is that they don't know how to plan for the conservation element. All of their plans for power production mean higher costs. Conservation generally means long run, lower cost to the whole community.

I must be blunt. Any dollars spent on a utility bill means that will not be spent in the general economy in which most of our people operate. Our small entrepreneurs are going to suffer terribly every time that we raise utility rates. I can almost guarantee you once an entrepreneur goes out of business in my city—a small entrepreneur, in my city—that one more person, or several more, lose their jobs. Energy production creates fewer jobs in the economy than any other aspect of our study. I think that we do support, and we appreciate, the work of the chairman in conservation. We do support it; we do support all forms of energy production. They should all have an equal opportunity to be explored.

Our survival is going to be not on putting all of our eggs in one basket, but trying to get all aspects of production, however small, and all decisions, however small, done. I think in that we can win the battle.

Thank you, sir.

[The prepared statement, plus additional answers to questions asked of Mayor Redfearn follow:]

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TESTIMONY OF

THE HONORABLE PAUL REDFEARN

MAYOR, SPRINGFIELD, MISSOURI

on behalf of

THE NATIONAL LEAGUE OF CITIES

on

LOCAL GOVERNMENT ENERGY EFFICIENCY INITIATIVES

before

SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION

COMMITTEE ON SCIENCE AND TECHNOLOGY

U.S. HOUSE OF REPRESENTATIVES

May 13, 1980

67-314 228

PAST PRESIDENTS: Tom Bradley, Mayor, Los Angeles, California • Henry W. Maier, Mayor, Milwaukee, Wisconsin • Tom Moody, Mayor, Columbus, Ohio • DIRECTORS: R. Michael Amos, Executive Director, Virginia Municipal League • Patricia J. Baca, Council President, Albuquerque, New Mexico • Stephen G. Bates, Executive Director, League of Oregon Cities • Kenneth R. Bowers, Mayor, Lafayette, Louisiana • Kenneth G. Bueche, Executive Director, Colorado Municipal League • Henry G. Cisneros, Council Member, San Antonio, Texas • Charles S. Dibble, Mayor, Garland, Texas • Thomas J. Clark, Mayor, Long Beach, California • Willie Dell, Councilwoman, Richmond, Virginia • Arlington Elkins, Council Chairman, Washington, D.C. • Patricia A. Dukes, Executive Director, Mississippi Municipal Association • Woody Eckerly Jr., Council Member, Flint, Michigan • Carl T. Langford, Mayor, Orlando, Florida • Richard P. Lavin, Commissioner, Las Vegas, Nevada • Jim McClellan, Mayor, Houston, Texas • Ruth M. Messinger, Council Member, New York, New York • Ernest N. Morial, Mayor, New Orleans, Louisiana • Jean M. Pierlemonte, Director, Michigan Municipal League • Kenneth Payne, Executive Director, Rhode Island League of Cities and Towns • Algeia H. Pond, Mayor, Kensington, Maryland • Joseph P. Riley Jr., Mayor, Charleston, South Carolina • Patricia Roads, Commissioner, Dayton, Ohio • Charles Royer, Mayor, Seattle, Washington • James E. Ryan, Mayor, Arlington Heights, Illinois • Walter R. Simpson, Council Member, Kansas City, Missouri • Fred Talmage, Mayor, Rocky Mount, North Carolina • Dorothy Van Horn, Council Member, Jefferson, Iowa • John R. Watkins, Executive Director, Alabama League of Municipalities • Sara Wilkinson, Mayor, Hayward, California • Ted Wilson, Mayor, Salt Lake City, Utah

Mr. Chairman and Members of the Subcommittee, my name is Paul Redfearn, Mayor of Springfield, Missouri. Within the National League of Cities, I serve on the Energy, Environmental Quality and Natural Resources Steering Committee. As you know, NLC represents approximately 15,000 cities through their direct membership in NLC and through 48 State municipal leagues. I am pleased to testify today on the various State and local energy proposals now before this Subcommittee.

I would like to note that I am the third representative of NLC to testify before a Subcommittee of the Science and Technology Committee on this subject. I wish to express appreciation for your continuing interest in NLC's views on this issue of significant importance to the nation's cities.

From the outset, I must point out to the Members of the Subcommittee the almost unanimous support the Nation's cities have demonstrated for a major federal initiative in this area of local energy management. NLC has endorsed the enactment of a community energy efficiency program as one of its highest legislative priorities for 1980.

NLC recognizes the tremendous budgetary pressures that must be a major consideration in setting national priorities and allocating ever scarcer federal resources. For those of you familiar with local budget problems, you will understand the pressures that I and other Mayors are experiencing in setting local priorities and allocating limited resources. In a climate dominated by pressures to cut taxes and spending, it is very difficult for many local jurisdictions to find sufficient local revenues to develop and implement on their own a

major energy conservation program for their municipal operations and for their communities.

In addition, the Members of this Subcommittee understand the potential effects of an energy price spiral that is driven by foreign oil dependence and federal energy pricing policies. Unfortunately, most communities are not yet prepared for the local economic problems that will develop as energy prices drive upward. NLC believes that a new local energy initiative will stimulate new local energy programs and enhance existing ones to save energy and to prepare for future price increases.

Many of you who are familiar with the outstanding local energy programs in cities such as Los Angeles, California; Portland, Oregon; and Seattle, Washington, may ask why more cities haven't taken such bold steps. The answer is that cities that have taken an energy initiative have generally been able to do so because of preexisting capacity and resources. Seattle and Los Angeles, for example, have both benefitted from their operation of the largest municipal utility systems in the country. The staff capability and financial resources of these utility systems provided sigificant impetus and support for a comprehensive local energy program. In addition, Portland benefitted at an early stage from some Federal grant assistance.

Today the Subcommittee is considering three proposals which are designed to assist State and local governments in the development and implementation of energy conservation and production strategies and programs: the Energy Management Partnership Act (EMPA), H.R. 4382; the Community Energy Act,

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H.R. 7136; and the Subcommittee on Energy Development and Applications' discussion draft. I must point out that all three bills provide for a State and a local energy program and authorize similar levels of overall spending. NLC supports H.R. 7136, the Community Energy Act, as the preferred legislative vehicle to provide assistance to State and local governments for these energy activities.

I would like to make some specific recommendations on how to structure a local government energy program.

First, we strongly support a program that establishes a direct federal/local relationship in the development and implementation of energy conservation and renewable resource development strategies.

As you know, federal programs that are specifically designed to influence a particular activity at the local level rely almost totally on this direct federal/local relationship. In the case of energy conservation and renewable resource development, the case for a direct federal-to-local government delivery system is even more compelling, since many of the decisions that significantly influence energy use are predominantly local in nature, particularly in the residential and transportation sectors.

The Administration also supports direct federal funding to local communities ($50 million) as part of the proposed Energy Management Partnership Act.

Second, NLC supports formula grants for metropolitan communities. Other counties and cities and metropolitan planning organizations should be eligible for a discretionary

program. This approach is included in H.R. 7136 and the Subcommittee discussion draft. It should be clear to the Subcommittee that the broader the eligibility for grants the greater the potential for substantial energy savings.

We do not advocate an entitlement program. Cities eligible for the formula grants would receive a formula share of each year's funding, dependent upon the annual appropriations level, just as they now do in the Community Development Block Grant Program. In addition, there should be preapplication requirements to insure that communities which apply for assistance are commited to a serious local energy program.

Third, NLC supports a program that is jointly managed by the Department of Energy and the Department of Housing and Urban Development. We believe that an effective local energy program must include a role for both Federal agencies.

H.R. 7136 proposes a division of labor that draws upon the capabilities of both departments. HUD should be given a role in working directly with communities in developing energy strategies in areas such as housing, zoning, and community development. HUD has important and valuable experience in these areas that so significantly influence the urban infrastructure. In addition, HUD has developed an elaborate field structure that is quite effective in dealing with the complex local environment.

The Department of Energy has demonstrated that its expertise lies in the development and applications of new energy technologies and technical capability. This program would provide a real opportunity for DOE to focus the application of

new small-scale energy technologies on the community and neighborhood levels. This technology development role is as important to cities as the other functions DOE now performs in the areas of weatherization, fuels management, and emergency-mandatory measures.

I know that involving HUD in this program poses jurisdictional problems for this Subcommittee. However, I believe that a strong local program must provide for a meaningful role for HUD.

Fourth, NLC endorses a first year level of funding higher than the Administration's request of $50 million proposed in the EMPA. If the requested EMPA authorization level was divided evenly between the State and local programs, approximately $75 million could be made available for the local energy program.

Finally, we would like to make some specific comments about the Energy Management Partnership Act and the need for State/local coordination.

NLC believes that the State role in energy has been properly defined in existing programs and in the proposed EMPA. States are expected to develop an overall State energy plan that includes emergency contingency planning, implementation of certain federal mandates (like the 55 mph limit), energy information services, facility siting, technical assistance, and energy supply and demand analysis. In addition, the administration of federal grant programs such as the schools and hospitals program is an important State activity.

Local governments must participate in many of these State activities, particularly in emergency contingency planning and the development of the overall State plan. NLC believes, however, that the local programs under H.R. 7136 and the Subcommittee draft accurately set out an appropriate role for local governments in energy conservation, renewable resources, and coordination with the State energy plan.

In order to facilitate coordination with the States, NLC suggests that the Committee require strong local participation in the development of State energy plan, which is proposed under EMPA. H.R. 7136 and the discussion draft already contain strong requirements for local participation in the development of the State plans.

NLC also supports State program consolidation which is proposed under each of the three major proposals before the Subcommittee. We believe this initial consolidation will assist the States in the development of an overall energy management structure. Other energy programs outside the proposed consolidation should be reviewed so that at some future point additional program consolidation can occur as part of the State energy planning process.

In conclusion, I must reemphasize the need for federal support for a major local energy management program. Federal policy can no longer afford to ignore the vast untapped potential for energy savings that exists at the local level.

I appreciate this opportunity to present the views of NLC for this Committee's consideration.

CITY OF SPRINGFIELD

Paul L. Redfearn, Jr.
Mayor

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June 27, 1980

The Honorable Mike McCormack
Chairman, Subcommittee on Energy
Research and Production
Committee on Science and
Technology
U.S. House of Representatives
B-374 Rayburn House Office
Building
Washington, DC 20515

Attention: Mrs. Winifred Mathis

Dear Congressman McCormack:

I am writing to respond to your questions for the record on the hearings on the Energy Management Partnership Act on May 13, 1980.

I would point out that my responses reflect the views of the National League of Cities.

I appreciate the opportunity to present our views before the Subcommittee and I look forward to working with you on the enactment of this important legislation.

Sincerely,

Paul Redfearn Jr. (sgn)

Paul Redfearn, Jr., Mayor
City of Springfield, Missouri

Enclosures

Answers to Questions from the Honorable Paul Redfearn, Jr., Mayor, Springfield, Missouri on behalf of the National League of Cities for the hearing record on the Energy Management Partnership Act

1. Question: Do you feel the 80/20 split between SMSA's and others is a fair split? How does this compare with other block grant programs?

   Answer: The 80/20 split for funding represents a reasonable distribution of funding between metropolitan and non-metropolitan areas. As you know, this 80/20 split is now used in the Community Development Block Grant Program, which is administered by the Department of Housing and Urban Development, and it reflects the basic distribution of population nationwide.

2. Question: Under 367(b) of the Energy Development and Application Subcommittee's staff draft (enclosed), are the 17 items required as part of the application for assistance reasonable for small towns and cities? Should there be more flexibility for smaller units who are applicants under this subpart?

   Answer: There should be more flexibility for small cities and towns in meeting the 17 basic requirements of the local energy management program. The Secretary should be given the authority to waive any of these items to insure that a smaller community could participate in the program by fulfilling all or part of these items.

   A smaller community could match its capability to a number of the specific requirements and develop the capability, if appropriate, to meet the full program requirements at some later stage in the program.

3. Question: How much is reasonable per year to be spent in this program? What level of cost-sharing seems relevant?

   Answer: NLC has consistently endorsed a small block grant program in the range of $75 to $80 million. I think this level is both justified and realistic as an initial program level. In addition, local governments should be expected to provide a match for this program. NLC believes however, that the maintenance of effort requirements are reasonable for the first three years of the program.

4. Question: What impact, if any, do you expect on localities from the extensive energy planning requirements under subpart B of the staff draft (enclosed)?

   Answer: NLC believes that the planning requirements set forth in the staff draft represent a realistic level of sophistocation for cities during the initial three year period. As you know, many communities have already developed energy planning processes which meet all or part of the criteria established under

Subpart B. As energy prices continue to move upward, necessitating more elaborate municipal and community energy planning, these requirements will not appear to be unworkable. In fact, most communities will be forced to develop this type of local planning capability.

5. Question: Should emergency planning be concentrated at the state or local level under this legislation?

Answer: Emergency planning efforts should be concentrated at the State level. However, active local participation in the development of these emergency plans is critical if the State plan is to be effective and responsive to the decentralized pattern of energy use. It is inevitable that the State plan will develop as a collective of local plans with State emergency measures working in conjunction with approved local emergency programs.

Mr. McCORMACK. We will hear from Mr. Grainey at this time. He is the Deputy Director, Department of Energy, State of Oregon. You may proceed.

STATEMENT OF MIKE GRAINEY

Mr. GRAINEY. Thank you, Mr. Chairman.

First, let me say at this time that I appreciate the opportunity to be here and to present this testimony to your committee. My testimony is on behalf of both the State of Oregon and the National Governors Association.

I would like to make three brief points related to my testimony.

First, we support the legislation generally. We think it is very important and needed. The increased funding levels for conservation and renewable resource programs is an important point. The consolidation and coordination of existing programs that have been passed by the Congress over the years is also extremely important. I think that we are at a critical stage where we have gotten over the initial humps in the startup periods in which there has been difficulty and in logistical problems in putting programs together. The groundwork is laid so that effective programs can be performed.

The partnership between the Federal Government and the States is extremely important with the State and local governments implementing the Federal programs. I think that is the most effective way to do it.

In Oregon, we get a great deal of press which I hope is accurate. It says that we have one of the best conservation programs in the country. That has involved a lot of Federal support and Federal assistance. Half of our funding is Federal money. I think that we need both the Federal Government and the State and local agencies to work together.

The second point that I would like to turn to is the forecasting requirements that have been included in some drafts of the bill.

The State of Oregon, and a number of other States, such as California, New York, Wisconsin, and a number of others, have developed their own forecasting over the years. This has been used as an important tool for energy planning and for making decisions on sites in the States.

The concern that we have is that the forecasting requirements included in EMPA do not supersede the State site decisions or State forecasting decisions. By that, what I mean to say is that forecasting is an important tool, an extremely important or valuable one. The States' use forecasting for their decisionmaking, therefore the States should have the say on what the input is and what the planning parameters are. I would be very troubled if the Federal Department of Energy required States to comply with forecasting requirements in order to receive conservation funds. The Department would be setting requirements as to what the methodologies must be, what the inputs must be. To the extent that a State can control is own destiny, that forecast, as a planning tool, is extremely important. I prefer to see the EMPA legislation be permissive and allow the States to use that money, particularly the 40 percent that is not earmarked for direct conservation activities, for forecasting and energy plan-

ning, but not to give the DOE the authority to impose standards relating to the forecasting.

Finally, let me turn briefly to the question of the relationship between the State and local governments. Perhaps I should take my hat off and tip it sideways on this because, in Oregon, we haven't had quite the problem that some States have had in dealing with local communities. We have had an active interest and generally good relations with our local governments, the city of Portland, the city of Eugene, and many local counties and rural areas as well.

However, I think it is important that some type of mechanism for coordination between State and local governments be adopted in EMPA. I think that is important, not as a question of empire-building or turf fighting between one side or the other, but simply to avoid the duplication in going through the growing pains that the States have already had to do. This is so that we don't reinvent the wheel.

I think that the programs involved in EMPA are too important to have to spend time reinventing the wheel and to lose in a tug of war over who has the final say.

Let me offer a couple of suggestions relating to that. The NGA suggested a planning council that would be composed in each State of an equal number of State and local representatives. The council would establish priorities for the use of funding earmarked for local governments. It would determine the allocation system for distributing money and review applications from local governments and award grants. It would participate in development of State plans. I think that is one way that you could go that would be very workable.

Now, another way would be a passthrough to the State energy department, like schools and hospitals, and, perhaps, with a percentage limitation, x percent, or whatever amount is deemed appropriate, to go directly to the local government agencies.

Another alternative is to let the cities and counties and other local instrumentalities make their proposals, but to require the State to determine that their proposal is consistent with the State energy plan under EMPA.

Still another alternative is to have a simple State checkoff. In the event that any of these alternatives are adopted, if there is an impasse between the city and the State, an appeals process to the U.S. DOE can be established for the State or the city.

I think that the important point is to foster the cooperation of State and local governments to work together. The programs involved, I think, are too important for us not to have that happen.

That concludes my remarks. Thank you, sir.

[The prepared statement, plus additional answers to questions asked of Mr. Grainey follows:]

TESTIMONY OF

MICHAEL W. GRAINEY
DEPUTY DIRECTOR
DEPARTMENT OF ENERGY
STATE OF OREGON

ON BEHALF OF THE

NATIONAL GOVERNORS' ASSOCIATION
SUBCOMMITTEE ON RENEWABLE RESOURCES AND CONSERVATION

BEFORE THE

SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION
HOUSE COMMITTEE ON SCIENCE AND TECHNOLOGY

ON

H. R. 4382

THE ENERGY MANAGEMENT PARTNERSHIP ACT OF 1979

MAY 13, 1980

Mr. Chairman, members of the Committee, on behalf of the National Governors' Association and the State of Oregon, I wish to express my appreciation for the opportunity to appear before you today to discuss H.R. 4382, the Energy Management Partnership Act of 1979 (EMPA).

By way of introduction, my name is Michael W. Grainey. I am Deputy Director of the Oregon Department of Energy.

Let me begin by stating that H.R. 4382 is strongly supported in concept by the states. In fact, Mr. Chairman, EMPA's origin can be traced to the 1977 White House Governors' Conference on Energy during which President Carter promised the Governors that the Administration would reexamine existing federally created state energy conservation programs. In response to that commitment, NGA established a task force to work with the Administration on this process of reexamination.

That task force issued two significant recommendations: (1) that existing programs be consolidated; and (2) that a total energy management capability be established at the state level. EMPA was developed in response to these recommendations.

The states are showing a growing recognization of their responsibilities in the energy area. This bill will strengthen and make their role more effective. We support the concept of this bill because it develops a meaningful role in energy for the states and utilizes the states as the delivery mechanism for energy programs. At the same time, it recognizes the differences among states.

Mr. Chairman, it is important to recognize that the states have considerable powers which affect energy production, consumption, conservation and conversion. States and their localities design and operate transportation systems, regulate

land use, regulate the design, construction, and operation of buildings, regulate energy utilities and the siting of major energy facilities, control extraction of energy resources, serve as the vehicle for administering and enforcing national air and water quality standards and operate the system of public education.

The energy management concept underlying the proposal recognizes and reinforces expanding state capabilities in the areas of energy conservation, renewable resources, energy emergency conservation, as well as conventional energy development and research and development. More importantly, the proposal provides the resources necessary to undertake the comprehensive planning and analysis in support of all these activities. We believe that this financial assistance will be a catalyst for the commitment of state funds. In the past, the State Energy Conservation Program has stimulated states to contribute funds for state energy offices and conservation activities.

Mr. Chairman, as you know so well, our energy problem is complex. It has defied any easy solutions. If this problem is to be resolved, if we are to free ourselves from undue reliance on unstable foreign supplies of energy, I believe that many different remedies should be pursued and many different approaches should be tested. The states should be encouraged to explore creative and innovative solutions to our common energy problem. EMPA would stimulate such a process.

At the same time, states must be given the flexibility to develop state plans which are responsive to state concerns. This is important because states differ greatly in their energy sources and energy uses. Political, economic and social climates are equally varied. Federal programs that ignore these differences simply won't work.

States need to develop programs which reflect their particular situations. Innovative energy programs have been developed in many states: energy disclosure requirements in Minnesota at the time of property sales; time-of-day energy rates approved by the Colorado Public Service Commission; mineral severance taxes Montana and New Mexico dedicated to fund energy research; Oregon's requirement that energy be be considered in land use planning. I would like to submit for the record the report "Selected Examples of State Energy Initiatives" which provides a sampling of the variety of energy related programs being undertaken in the states.

While we strongly support enactment of EMPA, we believe a number of amendments to H.R. 4382 will make the bill more effective. Our first recommendation deals with the role of local governments. Although there are a number of proposals dealing with these issues, we strongly urge that any local government program be made an integral part of EMPA. The states support the general thrust of EMPA which is focused on the development of a comprehensive state energy plan which would incorporate the plans and programs of the units of general purpose local government. We would recommend developing a local government program in EMPA. As you know, the Administration has requested a $50 million authorization for this local government program.

In order to insure the most cost effective use of the money and consistency with the state plan, the Governors would recommend that a state/local planning council,composed of an equal number of state and local officials, be established as a requirement under EMPA. More specific details on the structure of the council are attached (see Attachment A).

In brief, the council would:

- o establish priorities for the use of funding earmarked for local governments;

- o determine the substate allocation system for distributing money;
- o review applications from local governments and award grants;
- o directly participate in the development of the state EMPA plan.

Mr. Chairman, while a number of states have developed good working relationships with their localities, we feel that the creation of a formal planning council will foster a strong working relationship between states and their units of local government. A strong relationship is critical to the effective implementation of energy conservation measures, particularly those dealing with emergency measures to reduce gasoline consumption.

The planning council approach will encourage more cost-effective use of scarce federal assistance. A formula entitlement program for local governments, as has been proposed by some, would not be cost effective in that it would not target funds to those localities with the greatest potential for effective energy conservation efforts. Instead, it could lead simply to the creation of small energy planning bureaucracies in every city across the nation. The joint state/local planning council would provide the opportunity for effective prioritization and targeting of funds. It would also lead to a greater emphasis on implementation of energy conservation programs rather than emphasizing solely planning.

Many states have also initiated major cooperative efforts with their units of local government.

- o Minnesota has established a local outreach program including staff located full time in the city of Duluth. This program provides technical assistance on developing community energy policy as well as assistance in emergency preparedness.

- Several states, like California, Tennessee and Texas, have established grant programs for units of local government. Over the last three years California has provided more than one million dollars to local government and community organizations which was matched by $6 million in kind efforts in the following four areas: regulatory programs (e.g., building and solar codes); community action weatherization workshops; transportation systems management; and local government energy management. Texas has provided $200,000 yearly for small grants of up to $25,000. Projects are selected on the potential for energy savings, transferability and innovativeness.
- Maine has developed comprehensive energy plan as pilot projects for three of its localities: Sanford (15-20,000); Mechanic Falls (2,500-3,000); and Holden (800). The result of this effort will be distributed to other localities. Maine has also passed a $2.5 million bond issue which will provide money for local government building retrofit. (A 50 percent match will be required).
- Oregon is working with the City of Portland to insure that state legislation will complement local initiatives. Portland is mandating audits for commercial and industrial firms within five years. The state is developing legislation to support such efforts by insuring that audits would be available.

Our second recommendation deals with the proposed funding level for EMPA. We feel it is insufficient compared to the state responsibilities contemplated under the bill. When EMPA was first developed several years ago, states were administering three basic conservation programs mandated under the EPCA, ECPA and EES statutes. The Administration foresaw EMPA as a consolidation mechanism combining these three programs and providing states with funding to develop a broad capacity in the additional areas of energy forecasting, renewable resources, and energy emergency programs. This original package was to be funded at the $110 million level annually. However, since that time the following new programs have been enacted, with the states directed to handle implementation:

- Residential Conservation Service Program;
- Buildings Energy Performance Standard;
- Low Income Weatherization Program;
- Institutional Buildings Grant Program ("Schools and Hospitals");
- Energy Emergency Conservation Act;
- Emergency Temperature Restrictions Program.

In addition, states have and will continue to operate the state set-aside program for which presently no funding is provided by DOE. If the gasoline rationing program is implemented, then the states will have to administer the state rationing boards, assist in setting up local rationing boards, develop an outreach information system, and maintain the motor vehicle registration information system.

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Yet, with all these new programs to implement, the budget request for an expanded EMPA has fallen from $110 million to $105 million. Attached to my testimony is a chart of "ballpark" estimates of the actual cost of each of the programs to be included under EMPA. It should be noted that this chart does not include the costs of implementation of either the measures proposed under the Emergency Energy Conservation Act, or the standby gasoline rationing plan. DOE has indicated that these implementation costs will be funded separately from EMPA. These programs will be very costly. As an example, under the previous rationing plan, DOE estimated costs to states for pre-implementation and implementation of the state role in the rationing program at $153 million with additional operating costs of $160 million per three month rationing period.

Our third recommendation is that EMPA should be broadened to provide states with flexible assistance to deal with resource development planning. States rich in natural resources will be faced with difficult questions associated with resource development. They must decide the rate at which resources -- on-shore and off-shore -- should be developed in light of the environmental, economic, and social implications of such resource development. To make these decisions, states must carry out effective planning and develop strong energy facility siting mechanisms. A number of states have begun this process but EMPA could provide flexible assistance for this purpose.

Two of the major legislative initiatives of this Committee, the Energy Mobilization Board and the Energy Security Corporation, underscore the need for broadened state capacity in the resource development area. States with a number of EMB-designated "priority energy projects" will face dramatically increased workloads as will states selected as sites for several Energy Security Corporation-funded projects. If EMPA is truly to be a catalyst in developing a comprehensive

energy management capability at the state level, then funding should be available to assist states in carrying out their responsibilities related to the EMB and the ESC and to carry out resource development planning.

At present, the legislation requires states to prepare energy supply and demand forecases under 354(b)(1). These provisions should be dropped, but states should have the option of doing these types of forecasting and comprehensive facility siting planning with the flexible assistance. Many states have developed sophisticated forecasting systems. There is a serious concern that the efforts and resources spent on such activities would be wasted if states were required to conform to DOE regulations developed pursuant to Sec. 354(b)(1). Accordingly, the Governors would recommend the modification of or elimination of these provisions to insure that DOE cannot create a mandatory national forecasting system through EMPA. I want to make clear that States would like to develop forecasting capabilities. We would recommend that states be allowed to use EMPA funds for such activities but that states retain the discretion to develop a forecasting system to fit their specific needs.

In closing, I want to note that the states have been the key delivery mechanism for federal energy initiatives over the last several years. We welcome this role but we feel that in considering EMPA Congress must examine the broad range of programs it has enacted and decide to fund these efforts accordingly. The piecemeal approach of recent years where DOE has simply piled on new program requirements without providing any new funding cannot continue.

On the question of local government participation, I would close with the thought that the emphasis should be threefold: (1) consistency of local efforts with the state SWIM plan, (2) prioritization of local funds by a state/local planning council, and (3) implementation of measures rather than planning as the major local government responsibility.

Mr. Chairman, thank you for the opportunity to testify before you this morning. I would be happy to answer any questions the Committee might have.

Estimates of Costs for
State Activities Under EMPA, FY 80
(In millions of $)

I.	Conservation		
	Core Activities		
	EPCA/ECPA Related Activities	$65	
	Energy Extension Service (EES)	30	
			$95
	New Responsibilities		
	Building Energy Performance Standards (BEPS)	35	35
	Residential Conservation Service Program:		
	Existing program	30	
	Expanded RCS program under S. 932		
	a) scope (e.g., commercial)	20	
	b) grant program	15	
			65
II.	Categorical Programs (administration only)		
	Institutional Buildings Grant Program	21	
	Low Income Weatherization Program	10	
			31
III.	Renewable Resource Program		15
IV.	Energy Emergency Planning (Energy Emergency Conservation and Gasoline Rationing)		10
V.	State Set-Aside Operations		15
VI.	Data Collection, Analysis, and Forecasting (Including Projection of Need)		50
VII.	Resource Development (Including responsibilities under EMB)		30
	Total		$246 million

EMPA Planning Council

A state's application for financial assistance under EMPA shall include:

A State/Local Planning Council

- Each state shall establish or designate and maintain a state/local planning council for the purpose of:
  - establishing the priorities for which the money will be spent (e.g., planning, implementation of projects, etc.);
  - deciding by what method and how much money will be received by each unit of general purpose local government, provided that money be set aside to guarantee that each general purpose unit of government over 50,000 would receive at least a floor amount not to exceed $20,000;
  - receiving, reviewing and approving (or disapproving) applications for financial assistance made by the units of general purpose local government;
  - providing financial assistance to units of local government according to the priorities, methods and criteria established by the planning council;
  - participate in the development of a comprehensive state energy plan which takes into account the various units of general purpose local governments' needs and programs;
  - review the operation of the applicants and make recommendations for subsequent funding; and
  - develop a report assessing and evaluating projects funded under this section.
- The Council shall be appointed by the Governor, as described below, who shall designate one member therof to be a chairperson. The Governor shall furnish staff to provide professional, technical and clerical assistance to the council.
  - The council shall be composed of equal numbers of representatives from state and units or combination of units of general purpose local government in the state provided that the representatives from units of general purpose local government represent:
    - units of local government over 50,000,
    - units of local government under 50,000;
  - The representatives from units of general purpose local government shall be nominated by the chief executive officers of the units or combinations of units of general local government or state organizations representing the collective interests of county and municipal governments.
    - at least five more names than the positions reserved for them shall be submitted to the Governor.

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VICTOR ATIYEH
GOVERNOR

Department of Energy

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June 6, 1980

The Honorable Mike McCormack, M.C.
Chairman, Subcommittee on Energy Research & Production
Committee on Science and Technology
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman McCormack:

Thank you for the opportunity to testify before your subcommittee earlier this month on behalf of the Oregon Department of Energy and the National Governor's Association regarding the Energy Management Partnership Act. I am happy to respond to the additional questions you raised in your letter to me of May 21, 1980. These responses are provided below.

1. Besides the financial aid, what portions of this bill do you consider essential?

   Federal financial aid to the states, in order to be effective, must be directed to programs that can be developed and administered in an effective way at the state level. The Energy Management Partnership Act is essential because it provides federal assistance for state and local energy activities that can best be directed at the state and local level, namely conservation and renewable resources. Conservation activities, by their nature, must be decentralized, i.e. in order to be effective there must be activity and cooperation in many sectors. Moreover, conservation measures are typically less expensive to the ultimate consumers than financing new energy resources to derive the equivalent amount of energy. As such, they are particularly adaptable to different local and regional needs, taking into account climatic, economic, and social differences in each region. EMPA gives the states the latitude to take account of these differences in developing their own programs and that is a valuable aspect of the bill.

   State administration of federal programs, both in the energy and pollution control areas, has been an effective method for federal goals to be achieved in a harmonious balance with state concerns. By combining federal minimum goals with state discretion on how best to achieve these goals, the best elements of federalism are combined. EMPA continues this process and this is a key feature of the bill. (See e.g. An Evaluation of the State Energy Conservation Program from Program Initiation to September 1978, Final Report, U.S. Department of Energy, March 1980.)

Currently, the federal government provides funding for state conservation activities under a combination of different programs and statutes. The consolidation of these programs into one comprehensive program will ensure greater effectiveness in the implementation and administration of the overall program.

Finally, EMPA provides for important local initiatives. In many respects, conservation programs must ultimately be administered by local officials. So long as there is a minimum degree of consistency between the state conservation plans and local initiatives, local government should be encouraged to develop innovative programs. The version of EMPA reported out by the Senate Energy and Natural Resources Committee contains a satisfactory mechanism for assuring the needed coordination between state and local governments.

2. Do you favor the emphasis of the bill on conservation or would you like to have the freedom to spend more of the money on energy production, energy supply, and energy emergency planning? Would you like the definition of "renewables" broadened to include fission, fusion, or other potentially abundant sources of the future?

We favor the emphasis of the bill on conservation and renewable resource development and believe the bill's focus should not be broadened. A major purpose of EMPA is to consolidate and enhance existing conservation/renewable resource programs, as well as to provide funding for the emergency energy conservation programs established by the Emergency Energy Conservation Act. In addition, EMPA provides the opportunity for states to develop flexible energy programs unique to each state's situation.

Given the limited amount of federal funding available for EMPA, the effectiveness of the program would be substantially diluted if the bill attempted to cover the other broad areas raised in this question.

For example, the definition of renewable resources in the bill should not be expanded to include fusion or other high technology renewable resources simply because of the practical realities of the funding levels available under the EMPA program. If the limited amount of money available under EMPA is to yield any renewable resource energy in the immediate future, it must be spent on decentralized relatively inexpensive technologies, such as wind, biomass, geothermal and some of the solar applications.

Research and development programs needed for the effective utilization of such high technology and capital intensive programs as the breeder reactor, fusion, solar satellites, and large scale ocean thermal systems must realistically be funded and undertaken at a national level by the federal government. The extent to which large amounts of federal money should be spent on such high technology programs is an issue for Congress to decide evaluating overall federal energy policy and should not be tied into the state conservation programs developed under EMPA.

3. Do you favor the comprehensive energy planning under this legislation? Would you prefer planning that was limited to conservation? Does this planning overlap work already done by the PUCs, by other state agencies, or required by other legislation?

Comprehensive energy planning is a very important aspect of state energy policy. Many states, including Oregon, have developed their own planning capabilities and independent forecasting for use in state energy planning and in state energy facility siting decisionmaking. These forecasting responsibilities are carried out usually by state energy departments or state public utility commissions. Such decisions go to the heart of state prerogatives in energy policy and siting and, as a result, the state planning function should not be subject to federal oversight nor should it be a requirement of EMPA. For those states that wish to develop planning functions they should be allowed sufficient flexibility under EMPA to do so. In providing such flexibility, however, EMPA should not establish federal requirements for energy forecasting or other planning functions that would compromise the integrity and independence of those activities.

To the extent that the Energy Information Administration or other divisions within the U.S. Department of Energy are conducting national forecasts by state or region for their own purposes, the states and NGA are willing to provide any existing data the states have to assist the federal agencies to develop their own analyses. However, state analyses and forecasting developed for state purposes should not be subject to federal oversight. Most importantly, there are substantial differences in regional energy resources and constraints which require regional, not national, considerations.

4. What are your views on federally funded intervention by conservation advocates during PUC proceedings regarding central power facilities?

There is an existing provision in the Public Utility Regulatory Policy Act regarding intervenor funding. We believe this issue should be considered in the context of that Act, rather than EMPA.

5. Is 70 percent funding to conservation and 10 percent to the energy extension service reasonable from a state perspective? Does it also make sense to Texas, Wyoming, North Dakota, and other producing states?

As explained in answer one, the states should have the maximum flexibility possible for developing effective programs and determining whether outreach programs like the Energy Extension Service or other conservation programs would be more effective.

6. Should energy forecasting now being done at the federal level continue to be done there?

Yes. As discussed in answer three, we have no objection to federal forecasting so long as it does not interfere with or overrule in state energy siting proceedings the state-developed forecasts. We will cooperate with the federal agencies to assist them in their own forecasting efforts.

7. Will public utility commissions carry out those planning activities? If not, will their current planning activities be duplicated by the requirements in the subject bill?

Please refer to answer three.

In conclusion, NGA and the state of Oregon believe that EMPA is extremely important energy legislation which will play an important role in the overall federal and state energy programs and we urge quick House action on this bill. I hope this letter has been responsive to your questions. If you desire any further information, I would be very happy to respond to your further questions.

Sincerely yours,

Michael W. Grainey
Deputy Director

MWG:swd:md
cc: Ned Helme, National Governor's Association

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SELECTED EXAMPLES OF STATE ENERGY INITIATIVES

National Governors' Association
Energy and Natural Resources Program

December 4, 1979

This report provides a sampling of the many energy-related programs being undertaken in the states. The National Governors' Association Energy Program staff will be developing a more extensive study on state initiatives.

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RESIDENTIAL ENERGY CONSERVATION

Residential Energy Disclosure Program

Legislation has been enacted in Minnesota that establishes a residential energy disclosure program in which the seller must disclose to a buyer the results of an on-site inspection by a certified evaluator. The inspector checks such items as weatherstripping, caulking, storm windows, storm doors, attic insulation, wall insulation (where easily accessible) and positive fireplace shutoff. Such disclosures must be made for all homes sold after October 1, 1980. The seller bears the cost of evaluation. The state provides training courses for and certification of the evaluators. Failure by the seller to arrange for the evaluation or to disclose the results is considered a misdemeanor. The Minnesota Energy Agency will make spot checks to ensure compliance.

In addition, as of January 1, 1980, landlords of residential rental units will be required to retrofit units with weatherstripping and caulking if the payback period is less than five years. (The payback period will change to ten years in the spring of 1980.) The landlord bears the cost of the retrofit and is subject to a fine for noncompliance. By July 1, 1978, the landlord will be required to have rental units retrofitted to comply with measures beyond weatherstripping and caulking such as storm doors, attic insulation, and positive fireplace shutoff.

The disclosure requirement includes a consideration of the cost of energy for the potential home buyer. The bill affects all homes in the state and includes both utility and heating oil customers and rental users. In addition, the measures are mandatory and legally enforceable.

Conservation Loans

Connecticut has established a program authorizing the state bond commission to issue state bonds from which revenues will be deposited in an energy conservation loan fund to provide low-cost loans to residents for the purchase and installation of insulation, alternative energy devices and energy conservation materials in residential dwellings.

Tax Credits

Oregon allows a general tax credit of 25 percent for the cost of specified weatherization materials up to $125 and low-interest loans (6-1/2%) for weatherization provided after free energy audits performed by the utilities. Similarly, Arkansas will be providing a full tax deduction for energy conservation measures taken in homes or commercial establishments.

Weatherization Programs

A two-year old program in Rhode Island, created by Governor J. Joseph Garrahy and G. William Miller, the past Textron chairman, is built around a statewide non-profit corporation called Rhode Islanders Saving Energy (R.I.S.E.) which provides a free two-and-one half hour house audit by salaried R.I.S.E. auditors known as house doctors. As a result of the audit, the homeowner receives a detailed written analysis and recommendations for specific conservation steps, services, products, brands and installers. R.I.S.E. also works with local

banks, which supply auditors with forms for special reduced-rate weatherization loans. Over 50 percent of those inspected by R.I.S.E. auditors have spent an average of $1,500 on weatherization and solar installation.

Vermont also has a non-utility based residential audit program through which free audits by the state energy agency are offered in a six-county area.

A weatherization effort recently initiated in Massachusetts centers around a series of workshops across the state for local community leaders designed to provide these leaders with a method for teaching unskilled homeowners how to assess in a weekend the need for basic conservation measures such as caulking and thermostat reductions and how to implement these measures for $200 or less. The community leaders would, in turn, take this information back to their constituents and conduct a campaign to have homeowners implement the program.

The New Hampshire Council on Energy has developed a three-part television series for homeowners dealing with insulation, infiltration control, moisture control and oil burner efficiency. Given the favorable response received from the public to the program, the New Hampshire educational television station has decided to repeat the series this winter. The television programs are part of a statewide residential retrofit program which includes workshops for homeowners on how to retrofit a home.

A statewide program begun on November 1, 1979 by the New Jersey Department of Energy offers on-site home audits through utilities as part of the state's Home Energy Savings Program. Combustion efficiency tests are also available for fuel oil users. Audits cost $15 for the homeowner receiving the audit. Remaining audit costs are distributed among rate payers as part of their fuel bills. This is a forerunner to the national Residential Conservation Service Program now being developed.

Multidwelling Units

Maximum Temperatures for Space Heating and Domestic Hot Water. Governor Carey of New York has included in his request to the state legislature bills establishing a statewide uniform maximum temperature requirement of 68°F for space heating in multifamily dwellings between 6:00 a.m. and 10:00 p.m., and 55°F between 10:00 p.m. and 6:00 a.m.; and a maximum temperature of 110°F for hot water in multiple family dwellings. Enactment of the space-heating restrictions would save approximately 600,000 barrels of oil annually and savings equal to $17 million at today's retail prices for heating oil. Enactment of the domestic hot water restrictions could result in savings of 1.75 million barrels per year in New York and approximately $50 million annually.

Ventilation Requirements. A pending New York bill would reduce existing rates of operation for mechanical ventilation systems in kitchens and bathrooms within multifamily housing throughout the state, thus reducing excessive exhaust of conditioned air. The proposal would not affect those multifamily dwellings currently equipped with individually controlled ventilating systems within apartment units. The existing ventilation rates were designed for maximum-use period while this new provision would allow ventilation rates to be adjusted during periods of non-use without adverse effects.

Another proposed bill currently before the legislature requires municipalities to accept the mechanical ventilation requirements of the State Energy Conservation Construction Code. This code is identical to the national consensus standard and varies substantially from existing state and local building codes. This change in code would decrease ventilation needs under certain circumstances and, therefore, decrease the amount of space heating necessary.

Public Housing. Massachusetts recently enacted legislation which includes a $24.5 bond issue for the development of conservation and renewable resources in state and local public facilities. Seven million dollars will be devoted to retrofit or construction in publicly-financed multidwelling units. This project will include the use of passive solar technology. The federal government will provide technical assistance in passive solar design, while the state will bear all retrofit and construction costs.

COMMERCIAL AND INDUSTRIAL ENERGY CONSERVATION

Commercial and Industrial Audits

Many states have conducted successful commercial and industrial workshops. For instance, an analysis, including pre- and post-surveys, was done in New York of a series of seminars and workbooks for small commercial building operators on "do-it-yourself" energy audits. To date, 18,000 workbooks have been distributed. Some 7,500, or 42 percent, of those who received workbooks followed through with conservation actions. Each workbook recipient saved 8,000 equivalent gallons of oil annually, for a savings of $5,700 each, which amounted to 20 percent of the recipient's total energy costs. A total of 60 million equivalent gallons of oil, worth $43 million, was saved. The state is evaluating the results of the program to aid in the design of future workshops and conservation efforts.

Wisconsin has conducted a series of workshops across the state aimed specifically at the hospitality industry. Upon request, subsidized audits by a professional engineer were made available to workshop participants. The information from these audits will be compared to a survey taken after the workshops to determine changes in actual energy use due to workshop participation. A Small Business Energy Management Program begun a year ago in seventeen Kentucky counties is now being expanded statewide. The Kentucky program will be administered in eight regions by state-supported universities with engineering expertise. Each university will specialize in conservation measures for a certain type of building and will share this information with other universities.

In the state of Arkansas, four previous plant managers from the staff of the energy office provide free walk-through audits for industry. The average energy savings per audit is 18 percent primarily through simple operational and maintenance adjusmtnets. One company, Atkins Pickle Company, had a 42 percent savings.

Given the large use of grain elevators in the state of Kansas, workshops have been developed and are now underway for energy-efficient management of grain elevators.

District Heating and Cogeneration

The state of Minnesota has ongoing projects in the use and development of district heating systems. These systems transport thermal heat through underground pipes for both space heating and process use. Under a DOE contract, a study was completed which identifies the institutional barriers to the use of various district heating systems. Fourteen steam district heating systems are now operating in Minnesota. Based upon these findings, the Minnesota Energy Agency has promoted the creation of a not-for-profit development company to start a district heating system using water rather than steam for a more efficient district heating system in St. Paul. Another study being conducted by the Energy Agency is investigating state power plants close to metropolitan areas which could be used in the developement of a cogenerated district heating system. The development of a system in Moorhead, for instance, would require an investment of $11.5 million to build the system and expand the program over a five-year period. However, the utility is expected to receive a positive cash

flow in three years; would break even in nine years; and in twenty years would receive a reasonable economic return. The cogenerated system would use waste heat from the power plant to heat water for circulation in underground pipes.

In addition to industrial audit workshops and on-site technical assistance provided by the Texas Energy Office, the Public Utility Commission will provide a framework for policy development, removal of barriers, resolution of rate issues and information dissemination in relation to Texas cogenerators and utilities. A cogeneration handbook and associated video case studies currently are being developed.

Time-of-Day Rates for Industrial Users

Time-of-day rates establish higher rates for utility customers during peak hours and lower rates for off-peak use as a way of reducing peak load and thereby reducing generating capacity and total fuel needs. The Colorado Public Utility Commission has approved time-of-day rates for industrial users.

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TRANSPORTATION MEASURES

Railroad Branchline Assistance

A railroad branchline assistance program begun in Iowa in 1974 has helped to revitalize 800 miles of old branchlines for use in hauling commodities. In this program, the state initially pays 50 percent of the cost of revitalizing the line, while the shipper pays 25 percent and the railroad 25 percent. This benefits the shipper and railroad by reducing the cost of transporting goods while assisting general economic growth and reducing overall petroleum consumption which would be used in trucking the commodities.

Promotion of Bus Use

In FY 79, Iowa provided $75,000 in direct subsidies to state employees who used mass transportation. This was done through the distribution to state employees of monthly passes valued at one-quarter of transit costs. Approximately 49 percent of those who took advantage of the subsidy had previously been in single-occupant cars. The costs of the program were offset, in part, by savings to the state in parking spaces and by the benefits of less gasoline consumption.

Idaho has been involved for three years in programs promoting the use of bus transportation. For instance, the Boise Urban Bus System operates a program in conjunction with the state to promote the use of buses through slide programs for schools and community organizations. To supplement the slide presentation, school children and members of community organizations may inspect a bus and are encouraged to ask questions. Also, free bus passes are distributed.

Conversion of State Fleet to Gasohol

Governor Thompson of Illinois recently announced a program requiring the 10,000-car state fleet to convert to use of gasohol by October 1980. In 1979, 12 percent of gasoline from state stations was gasohol.

Increased Truck Productivity

In some instances, the number of truck trips can be reduced by decreasing weight or other restrictions when safety is not hindered. For instance, after a Utah study concluded that the use of triple trailers for interstate trucks would be safe, restrictions on their use were lifted.

Ridesharing Programs

Ridesharing programs in states include computerized statewide matching programs such as L.I.F.T. in Utah in which individuals can dial 533-L-I-F-T to be matched to carpools, and economic incentives such as preferential rates and free parking in Colorado state-owned parking lots for carpools and vanpools. In Connecticut, an employer can call the state ride-sharing hotline number to be put in touch with experts in an area Regional Planning Council and in nearby companies which have instituted carpooling and vanpooling programs.

The eight-month old Missouri ridesharing program utilizes local councils and cities to promote ridesharing. Local governments, including St. Louis and Kansas City, contact corporations to persuade them to establish rideshare programs for their employees. McDonald-Douglas, Hallmark, and Monsanto are among the participants. This rideshare program is in addition to the Missouri Dial-a-Ride computer matching service. Also, legislation recently has been enacted in Missouri exempting vanpools from Public Service Commission common carrier regulations.

South Dakota is developing a computerized program for state government employee business travel. A state travel coordinating officer, through use of a computer, will ensure that all meetings and travel to meetings will be coordinated. A record will be kept which will include meeting times, locations, fuel used, drivers' names, passenger names, and transportation costs. State planes are included in this program.

Driver Training Courses

North Dakota is among states which have included course material on fuel efficient car maintenance, fuel efficient driving, and general energy awareness in established driver training courses. A slide show presentation on driver energy conservation awareness will be used in future courses.

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RESEARCH AND DEVELOPMENT

Grants to Private Industry

Ohio is one of 17 states that have initiated research, development and demonstration programs in both traditional energy sources,such as coal and natural gas, and renewable energy resources. The Research and Development Branch of the State Department of Energy, under a $1.4 million annual budget, provides financial assistance to industry aimed at absorbing some of the financial risk associated with the new process. For instance, a Coal Oil Mixture Study currently is being undertaken jointly by Ohio University (providing the study site), Ashland Oil Company (providing the oil and technical assistance), McNaily-Pittsburgh (providing technical assistance in grinding the coal and the design of the facilities), Eagle Crusher (supplying the coal), and Cleaver Brooks (supplying the boiler). Other experiments involve the use of coal pellets for small industrial boilers and a project in which crushed Ohio is cleaned in a magnetic field.

Severance Tax Revenues

A number of states have been able to utilize severance tax funds for energy research and development. For instance, in Montana, a portion of the revenues from a severance tax on coal goes to alternative energy research. Similarly, in New Mexico, a severance tax on oil, gas, and mineral production has provided funds for research and development through state universities.

Bond Program

In 1974, a Coal Development Bond Act was passed in Illinois which provided $70 million for developing technologies to utilize high sulfur coal in an environmentally sound manner. More recently, in 1977, the Act was changed to a Coal and Energy Development Bond Act which set aside $5 million of the $70 million bond program for the development and commercialization of alternative energy resources. The bond fund allows the state to supplement, and thereby prompt, the use of private funds. The Greal Lakes Naval Station Fluidized Bed Boiler is one project utilizing bond funds as well as contributions from the U.S. Navy, DOE and a private firm. The project will experiment with the use of fluidized beds on a large scale basis. A second project currently being planned involves a major Illinois utility, 16 investing utilities and firms, and a major manufacturing concern in the building of a coal gasification plant at Woodriver, Illinois.

ALTERNATIVE ENERGY SOURCES

Financial Incentives

By mid-1978, thirty-seven states had passed over 135 laws dealing with solar issues; sixty-one of these contained provisions for financial incentives. These incentives included income tax credits; sales, use and franchise tax exemptions; and loan programs. In late 1977, the California state legislature enacted the largest state solar tax incentive to date. The law allows a tax credit of 55 percent (up to $3,000) on the cost of a solar system. The credit applies to both residential and commercial installations.

In New Mexico, a financial incentive is administered as a rebate. The law allows a 25 percent credit, up to a total of $1,000, for solar systems installed in a principal residence, including solar-operated swimming pool heaters. In addition, New Mexico allows an income tax credit, not to exceed $25,000 for solar irrigation pumping systems.

Massachusetts has an income tax deduction for corporations which allows them to subtract the total cost of a solar system from taxable income in the year the system is installed. Solar systems are exempted from property taxation for 10 years and from state sales taxes. Massachusetts has a loan program that allows banking institutions to make extended loans with higher total values for solar systems. In addition, under a voluntary program, 115 banks have agreed to offer home-improvement loans with lower interest rates for solar installations and for energy conservation measures. Major legislation enacted in the 1979 session includes a 35 percent income tax credit for the installation of solar heating systems ($1,000 or 35 percent of cost, whichever is less); a sales tax credit for wood-burning equipment used as primary heating systems, costing over $900; a loan program for low-head hydroelectric energy feasibility studies and construction; and a five-year exemption for individual and corporate income tax for income derived from energy-related patents.

Maine recently conducted a successful solar grants program in which 40 grants of $400 each were given to individuals throughout the state to install solar domestic hot water heaters. The state also exempts solar devices from property taxation and rebates sales tax to purchasers of solar equipment.

Alternative Energy Research

States have been involved in a wide variety of projects designed to meet their individual needs: from efforts in Hawaii to promote the use of "bagasse," a substance derived from sugar cane and used increasingly by the state sugar cane industry to generate power, to efforts in Minnesota to investigate the design of earth-sheltered homes.

In Montana, $2.2 million from a severance tax on coal has provided grants for over 125 projects. One grant has helped to start a Center for Innovation within the Montana Energy and Magnetohydrodynamics (MHD) Research and Development, a non-profit research and development institute. The Center has a staff of technical experts and marketing and business analysts who help individuals or companies from the idea for an innovative project through to its commercialization. In addition to expertise, the Center provides seed money, including capital costs and contracts with manufacturing firms. A biogas generator and a variety of solar collectors are among the projects aided by the Center. Once such an item has been commercialized, the Center receives a small percentage of patent or manufacturing profits for continuing its efforts in other areas.

Other projects that have been funded through the severance tax revenues include wind surveys of Montana mountain valleys and the development of a unit to monitor the total energy flow of a house in order to test the effectiveness of solar heating units.

North Carolina is among the many states investigating the more wide-scale use of wood as an energy source. Since late 1977, a state coordinating group has been established to coordinate state agencies' and universities' wood-related projects. In one of the many projects undertaken, small trees are shorn and chipped in the field. The whole tree chipper blows the ready-to-be-burned chips into a truck for compact transport.

Further information on state solar incentives is included in The Implementation of State Solar Incentives: A Preliminary Asssessment, Solar Energy Research Institute, January 1979, available from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161, or State Solar Legislation, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, National Solar Heating and Cooling Information Center, P.O. Box 1607, Rockville, MD 20850 (800)523-2929.

Recycling Programs

The State of Alabama has two pilot programs in Tuscaloosa and Mobile for the recycling of oil. Garbage trucks are equipped with oil drums for the collection of used oil (primarily used car engine oil) from homeowners. In addition, collection centers have been established throughout the two cities. Another Alabama recycling program concentrates on the use of wastewood. Wood product or related industries are urged to use their waste chips or bark by converting from oil-fired boilers to wastewood burners. The state offers technical assistance and feasibility studies for such companies through the University of Alabama.

Gasohol Commercialization

South Carolina began a public awareness campaign in the spring of 1979 to encourage the use of gasohol. An Alcohol Fuels Advisory Council was formed and a statewide gasohol meeting was held to bring consumers, gasoline retailers, and government officials together. In addition, the state tax on gasohol has been reduced.

Wood Commercialization

Since September 1978, Delaware has conducted in-state wood stove seminars and one regional seminar, reaching an audience of 3,500 people. Seminar topics included: safe installation and operation of wood stoves, fire protection, fuel selection and availability, economics and the contribution of wood to the energy situation, code provisions, e.g., fire and building, and insurance regulations.

Hydroelectric Development

In Massachusetts, the Energy Facilities Siting Council recently received legislative authority to set up uniform permit and licensing application forms for hydroelectric development. The law establishes one lead agency within the Executive Office of Energy Resources to coordinate and enforce time limits for the state-level permits required for water power developments.

LOCAL GOVERNMENT ENERGY CONSERVATION ASSISTANCE PROGRAMS

Regional Planning Councils

In Florida, the Governor's Energy Office has developed an outreach network through the use of its eleven Regional Planning Councils (RPC). The Councils are composed of elected officials representing all the counties of a specific region and a proportion of the municipalities. Each region also has a citizen advisory/action committee, composed of approximately thirty-five citizens per region representing energy suppliers, consumers, local government officials, business and industry groups, the League of Women Voters, Audubon Society and other community groups. The Governor's Energy Office has contractual agreements with each Regional Planning Council to support one professional energy planner, for each council. Each Council that participates must provide matching funds.

Under a special 1972 Florida statute, each RPC is required to prepare an assessment report of the impacts of the proposed development of any project affecting more than one governmental entity, such as large residential subdivisions, airports and expansions of shopping malls. Once officially adopted, the report and recommendations are forwarded to the local government involved which is then required to consider it in making final decisions. The presence of an energy planner on each Council ensures energy planning considerations in such assessments. The RPC, as authorized by the OMB Circular A95, reviews all projects in the region that involve federal assistance. In addition, conservation considerations are introduced into the comprehensive planning process of Florida's 460 local governments by legislation that requires all local governments to adopt and adhere to a comprehensive plan which is reviewed by both the Regional Planning Councils and the state government. Any comments or objections to the plan must be addressed by the local government prior to final adoption. The RPC's also serve as Regional Energy Information Centers to provide energy-related technical information, films, and publications and as regional support to the state's sixty-seven County Energy Information Centers (CEIC), which have been established in each of the counties of the state and are staffed with personnel from Florida's Cooperative Extension Service.

The second year contract with the RPC's called for the energy planners to promote the adoption by each local government of an energy conservation resolution, the appointment of an energy coordinator and/or committee responsible for the promotion and monitoring of the implementation of the energy conservation resolution and the incorporation of energy considerations into the local government comprehensive planning process. The RPC's were provided with technical information packages for distribution to each local government in their region. These packages included energy management, conservation, and auditing materials and forms.

Land-Use Planning

Under legislation passed in 1973, each locality in Oregon is required to "maximize the conservation of all forms of energy, based upon sound economic principles" in developing local land-use plans and ordinances. These ordinances must be established by July 1980. These land-use plans are subject to review and approval by the Oregon Land Conservation and Development Commission. The Oregon Department of Energy provides guidance to localities in complying with this provision of the Act and has prepared a Community Energy Planning Document in support of this effort. Among the possible strategies localities can use in their plans are municipal ordinances for disclosure of energy efficiency at sale or lease of a home; property tax credits for weatherizing existing structures; building code amendments to allow for use of roof shading; municipal sign and zoning ordinances to reduce commercial lighting use and to increase the use of landscaping and building orientations.

ENERGY EMERGENCY PREPAREDNESS

Energy Emergency Scenarios

The Ohio Department of Energy has developed computer model simulations for both coal and natural gas supply contingencies. The models enable the DOE to record utility data and projections during various degrees of supply shortages and with and without individual utility curtailments or the state overall curtailment plan. Ohio utilities will be tied into the system during an actual emergency and will be able to obtain up-to-date information needed to decide further curtailment strategies and the need to purchase power from other utilities.

Energy Emergency Authorities

In the last legislative session, new bills were passed in a number of states regarding gubernatorial authorities during an energy emergency. In Colorado and Michigan, for instance, legislation was passed allowing the Governor to use emergency power to mitigate the adverse effects of fuel shortages. Legislation to revise or extend the existing authorities of other Governors was introduced in California, Connecticut, Hawaii, Kansas, Maryland, Minnesota, Montana, New York, West Virginia, Wisconsin, and Vermont.

Further insights into state emergency legislation are included in the report, Energy Emergency Preparedness: An Overview of State Authority, National Governors' Association, June 1978.

Crisis Assistance

Many states have initiated state-supported special assistance programs to low-income families. Among these are the Connecticut Crisis Intervention Fund which provides up to $150 or 150 gallons of oil for low-income families in need of emergency assistance; Indiana's Project SAFE which offers reductions up to $10/month for low-income households for electric and $30/month for heating over a five-month period; the Kentucky Energy Cost Assistance Program which provides a one-time payment of up to $200 to low-income facilities; the Michigan Home Heating Tax Credit which provides up to $370 with refunds to non-taxpayers; and the New Jersey Board of Public Utilities Lifeline Program which provides a credit of up to $100 for electric and gas bills to senior citizens over 60 years of age and to handicapped individuals.

In New York, as in other states, state funds are being made available to start a Special Allowance Program immediately prior to the availability of funds under the federal program.

In addition, most states have initiated utility termination policies. For instance, in Georgia five days' written notice is required before a utility terminates service to a customer with a thirty-day extension of service allowed for illness. No termination is allowed at temperatures of 32 degrees or below.

Information on state energy assistance programs is included in The Energy Consumer Magazine, Vol. 1, No. 5, October 1979, published by the U. S. Department of Energy, Office of Consumer Affairs, and in Energy Assistance Programs and Pricing Policies in the Fifty States to Benefit Elderly, Disabled, or Low-Income Households, prepared by the Cleveland State University Institute of Urban Studies, Eric Weld, Jr., Project Director, David Sweet, Dean of College of Urban Affairs, submitted to the Ohio Energy Credits Advisory Committee, March 1979.

Energy Emergency Awareness

In anticipation of home heating problems this winter, the community outreach group of the Minnesota Energy Agency (MEA) organized a comprehensive program to assist low- and near low-income people in paying home heating bills, encourage energy conservation in the home throughout the winter, and provide temporary emergency housing to people who were either unable to pay their fuel bills or unable to obtain supplies.

Four local outreach staff members were scheduled to make two personal visits to 48 communities in the state. During the first visit, they introduced campaign activities and the contingency plan to local community representatives and citizens; the second visit later this fall will involve public announcements of the plan by community representatives and the MEA staff through coordinated media efforts.

Campaign materials outline measures that should be taken or considered by the mayor and specific local groups such as the energy awareness committees, community churches, senior citizen organizations, municipal utilities, chambers of commerce, directors of human services and community action agencies. Activities include the identification of buildings that can house people who are temporarily out of heat; providing drain-down procedures to avoid busting pipes; establishing a community "hotline"; coordinating information with the local press; conducting a campaign to disseminate "hotline" flyers and information on financial assistance for home energy improvements; and discussions with local groups on the energy supply and demand situation utilizing a slide show developed by the MEA.

Mr. McCORMACK. Thank you, Mr. Grainey.

In a very brief time, you have opened up a Pandora's box of extraordinarily difficult problems. The problems are covered over by some very easy statements. But I think that you recognize what they are. They are bound up in relation to the State and local government, between the Federal Government and the State or local government, and the Federal Government and the groups. There are questions, again, of compacts of States, groupings of States, cities that have their own utilities, and the cities that do not own utilities. There are States that produce energy and there are States that do not produce energy. There are States that have restrictions on energy production and States that do not. This brings us to a whole series of fascinating questions. I can only skim now across the top of this.

Now, Mr. Redfearn, you said that you owned your own utility.

Mayor REDFEARN. Yes.

Mr. McCORMACK. Is that correct?

Mayor REDFEARN. Yes.

Mr. McCORMACK. So, in Springfield, the city council essentially controls the utility.

Mayor REDFEARN. It is publicly owned. We have a board that operated the utility. We approve rates and the budget at the time.

Mr. McCORMACK. The board is created by the council and it is responsible to the council?

Mayor REDFEARN. Yes.

Mr. McCORMACK. What if the city doesn't? What if it simply imports electricity from some grid in the region? Does this create a substantially different situation?

Mayor REDFEARN. Essentially not. From the standpoint of the individual citizen in the community, they feel that they have got to have energy that they need. The public knows the difference between needs and wants. They have really learned the difference. They know what it is that they need. They want this at a price that they can afford. They are willing, at the individual level, to do a number of things, given the proper guidance and coordination to conserve energy.

Now, what they find, and this is even with our own local utilities, and this is the enigma that we have, which is that every time they conserve, the rates go up because of the major capital investment of the utility system. They have got to recover their capital costs under the system on their existing equipment.

Mr. McCORMACK. This is a phenomenon of the system rather than what is public or private.

Mayor REDFEARN. I think so.

Mr. McCORMACK. Go ahead.

Mayor REDFEARN. Our industrial people are very much concerned that we not make major capital investments, that is, if we can accommodate the next 20 years of growth through conservation or major efforts at the time through conservation. Then they say this as a plus for them because they know that if they put the new plant on, or if we build a 200-megawatt plant for $75 million, say, or if we did 5 years ago, it is not estimated to cost $400 million, requiring an immediate rate increase. Industry and the homeowners have to pay this. They have to increase their prices. They are caught in a bind.

On the other hand, if we can show, and I believe that we can provide the energy that is necessary for growth through conservation for at least the next 20 years, that we give them the time to make some very important internal adjustments in their own manufacturing processes without facing an inordinate cost of moving. When you live in Oklahoma where they sit you on top of a gas field or an oil well, that is different. We use gas right now, sir.

Mr. McCormack. How long have you been doing this?

Mayor Redfearn. Mr. Chairman, we use gas to heat 95 percent of our homes.

Mr. McCormack. Not to make electricity?

Mayor Redfearn. We were the first industry forced off gas. We used coal almost entirely.

Mr. McCormack. What is the cost of electricity to the homeowner per kW hour?

Mayor Redfearn. I am sorry. I would hate to quote a figure. It is too high.

Mr. McCormack. You said that the city would be involved right away in paying additional amounts in their rates. Does that imply or is that a pay-as-you-are-billed philosophy, as such?

Mayor Redfearn. It requires a coverage to float the bond issues. You have to have a certain coverage to float them at the time. You usually have to raise the rates in advance to generate at least 1 year or 2 years of increased income before you can get or maintain the bond rating to get the money to build the plant. You are paying for it. Now you are stuck with those payments. The fuel cost keeps going up. People cut back because of the increased fuel costs. They still have the actual capital investment. Now they have to recover their capital investment for the new powerplant over fewer units of fuel use there. It becomes a ratchet that will destroy us unless we can put a stop to it. I can categorically state in my city that the industries are leading the way in conservation. One major industry can now conserve 25 percent of its heating costs, not total energy. Nobody told them to do it. The price told them to do it.

Mr. McCormack. Thank you.

Mayor Redfearn. Yes, sir.

Mr. McCormack. There is almost instantaneous industrial conversation.

Mayor Redfearn. Mr. Chairman, very often we focus just on the electricity cost. It is the imported fuel. We are looking at the transportation reductions in the use of energy within our own community. Every time they spend a dollar on gas, and they can spend it less on a six-pack of milk or whatever else they would like to spend it on in the community.

Mr. McCormack. I think that one of the reasons the discussion so far today has focused more on electric energy production than other things is because this is the area where you have some policy control. We are all unanimously in agreement. We take it for granted that we are going to try to increase the efficiency of our automobiles as much as we possibly can. We will try to reduce our imports. We will try to stop the use of imported oil for the purpose of generating electricity.

I'd like to switch over to Mayor Hutchinson for a moment.

Mayor REDFEARN. Yes, sir.

Mayor HUTCHINSON. Yes, Mr. Chairman.

Mr. MCCORMACK. Now, Mayor Hutchinson, does Charleston, W. Va., have its own electric utility?

Mayor HUTCHINSON. No, sir. We don't operate a power utility.

Mr. MCCORMACK. Yours is coming out of a regional grid or local power company?

Mayor HUTCHINSON. Part of the American Power Co. system. We really export electricity.

Mr. MCCORMACK. It is coal produced?

Mayor HUTCHINSON. Yes, sir. It is with one exception in Michigan. I believe that there is a nuclear plant, Mr. McCormack.

Mr. MCCORMACK. The grid has nuclear plants. Your area is coal?

Mayor HUTCHINSON. That's right.

Mr. MCCORMACK. Let me ask you both this.

Mayor HUTCHINSON. It is clean-burning coal, sir.

Mr. MCCORMACK. Are the cities prepared to get into the insulation business? You heard the Edison Electric Institute witness point out some of the problems that the utilities have about getting into contracting or the construction business. Many of them are doing it. But are the cities prepared to get into the insulation business in terms of insulating homes and passing ordinances to require the financing of the insulation costs? In the case of Springfield are you, Mayor Redfearn, charging insulation costs off against the electric utility bills at this time?

Mayor REDFEARN. I have a memo from the head of our utilities department. For the first time, the utilities board and the department are not considering that it is in their best interest to work out some program to finance insulation and to finance peakload-shaving mechanisms.

Mr. MCCORMACK. Are they considering heat pumps at this time?

Mayor REDFEARN. Yes, sir, they are considering the heat pumps. We are considering fuel cells for the peakload storage also.

Mr. MCCORMACK. Mayor Hutchinson.

Mayor HUTCHINSON. I think it is a mistake in concept to try to take every city and say that this is the way that it is going to be. There are major differences in parts of the country between cities. It becomes a problem with an omnibus type of legislation which will put a number on all us. Every city of any size now has a capacity to deal with the local problem. This is one of the reasons why we object so strongly to the State's building another level of bureaucracy on top of the implementation of the local energy conservation programs that may come about. I think, yes, that the cities are willing. We already have our zoning and building requirements. We are ready to bid into the program. We have the mechanisms today to do it. We need some assistance. We think it has been too long coming to use. We think the block grant program approach already in place has been prudent and proven. We are ready to act on it. We'd like to get with the program. We feel the investment by the Federal Government of $100 million or $150 million is very small in comparision with the total energy program of $20 billion that we are talking about. We think that we can make an impact. We think it is an important impact. It is not the

answer. It is not the total answer, but it is an important facet of it. We are ready to go to work, but don't try to group us all together. We are very different from city to city.

Mr. McCORMACK. You said that you are moving on standards. Are you working with the Society of Refrigeration and Heating Engineers in establishing standards?

Mayor HUTCHINSON. In my city?

Mr. McCORMACK. Yes.

Mayor HUTCHINSON. If you look at our presentation, we have a number of cities and what it is that they are doing. Each city is doing it differently. The program is there. There is a module set up by Portland. It is similar to what we could use. We build on that type of thing.

Mr. McCORMACK. Are the States prepared to get into the business of supporting insulation, of insulating homes or financing them?

Mr. GRAINEY. Yes, sir. We've been doing that in Oregon for a few years. We have had State-supported tax credit programs for weatherization expenses. We've had mandatory programs as well. We have increased the building code requirements twice in the last 4 years with respect to insulation. This is for new housing.

In addition, our department of veteran's affairs that has a State veteran's program for low interest mortgages has mandatory requirements that, before a new loan can be issued, the house must be outfitted to the new code.That, in itself, has accounted for over 15,000 houses being weatherized and brought up to the code.

Mr. McCORMACK. Are there any further questions at this time?

Mr. OTTINGER. No; thank you.

Mr. McCORMACK. I do have a couple more questions to ask.

Mayor HUTCHINSON. Yes, sir.

Mr. McCORMACK. Mr. Grainey, as I have sat here through a number of hearings and committee meetings this year trying to figure out the budget, I can say I was impressed by the number of times you mentioned the need for money. How much restraint do you think should be exhibited by the Federal Government in providing manageable support? What kind of standard should be applied? What should be the requirements?

Mr. GRAINEY. The overall Federal budget balancing requirements are very serious. I view the energy program entirely, and within that the EMPA program, sir, as being one of the country's top priorities. I think funding on EMPA should be monitored very closely by the Federal Government. They already have some pretty strict reporting requirements that we have to go through. I think the conservation and renewable programs, where they are cost effective, should be one of the highest priorities we have.

Mr. McCORMACK. What if they are not cost effective and they are renewable?

Mr. GRAINEY. I think that you have to look at this in two stages. One is to what extent would the Federal money make them cost effective.

Mr. McCORMACK. What if they are not cost effective with Federal subsidies?

Mr. GRAINEY. Then you have to balance how important it is to get the energy from alternative resources or nonpetroleum resources. Our

policy is to reduce this. This includes nuclear energy, although I don't think that this program is tailored for nuclear development.

Mr. McCormack. Do you think that is a good idea, Mr. Grainey?

Mr. Grainey. I see nuclear energy and many sources of electric generation as useful. However, I think that if you look at what the Federal Government has done over the years for the entire energy industry, that the Federal Government has always provided direct or indirect subsidies through tax credits and through other provisions in the tax laws for the industries that are not established. I think that was good and necessary. If you are looking at a new energy industry for conservation on a wide scale level and renewable resources, you have to compare what the Government has done over the years for the industries.

Mr. McCormack. Why do you look at the past? Why don't you look to today's problems? Isn't the goal here to solve today's problems, to do whatever is necessary today to solve the problems?

Mr. Grainey. Absolutely. In order to therefore do that, I think the new energy industries have to be able to overcome this barrier or the head start that the oil industry, the gas industry and the existing industries have. In some cases, that may mean tax credits. It may mean low interest loans for upfront financing. It may mean other types of programs. I think that you have to be very careful how you develop incentives to get the most bang for your buck.

Mr. McCormack. You thought that the States should have the ultimate say on energy projections.

Mr. Grainey. For each individuals State's planning and siting plant purposes, yes, sir.

Mr. McCormack. And they should receive Federal funds for doing this?

Mr. Grainey. That is something to consider. In Oregon, we pay our own way. We would be happy to continue doing that, sir.

For the States in general, most States would like the opportunity to use Federal funding.

Mr. McCormack. But to be independent of the Federal Government in making decision?

Mr. Grainey. Yes.

Mr. McCormack. Would we include States that have antinuclear laws and allow them to use Federal funding and still have their projections be independent?

Mr. Grainey. I can't really answer that.

Mr. McCormack. It is a fundamental question if we have this sort of program, that are we willing to allow the States to charge off irrationally and pay them to do it.

Mr. Grainey. The nuclear question is very complex, Mr. Chairman.

Mr. McCormack. And its opposition is basically irrational.

Mr. Grainey. Yes, sir. I worked at NRC for 5 years. I saw a lot of irrationality on all sides. I think it is a mistake to phrase this into a pronuclear or antinuclear issue.

Mr. McCormack. I am referring to those States that passed laws that you can't have nuclear powerplants unless you solve the waste problem. My question is, should such States be allowed to take Federal money and make policies independent of Federal or regional needs?

Mr. GRAINEY. I would say yes. Oregon doesn't have such a law, but everything that the States does that the Federal Government may not necessarily agree with on policy, they shouldn't compromise the whole State-Federal relationship because of this.

Mr. MCCORMACK. We are not talking about that. We are talking about having enough energy for this country, about whether or not the grids will have enough energy. We know perfectly well that one State is not an island within itself, Mr. Grainey.

Mr. GRAINEY. I agree. If the State takes the step of saying we are not building any more nuclear plants, it seems to me that State equally has the responsibility of showing, "OK, if you are not going to have nuclear, how do you get your power?"

Mr. MCCORMACK. Do you think we should allow electricity at this time, nuclear electricity, to be transported into that State?

Mr. GRAINEY. It is an interesting question. From your State and mine, a lot of power goes South. That's a touchy question. We don't want to become a California energy farm because of their nonnuclear or other policies. Other States have to bear the environmental costs, sir, whether it is coal or nuclear because of a State refusing to build its own powerplant. I think that's a very undesirable situation. It should be handled on the State and regional level. I think the Federal Government establishing forecasting standards will not help to address that question. I think it has to be addressed in other areas.

Mr. MCCORMACK. Thank you very much.

Mr. GRAINEY. Yes, sir.

Mr. MCCORMACK. I must say that this is part of the legislation and the general perspective and the entire thrust. I can see what I consider throughout much of our society today as a tendency for people in government at all levels to assume that we can solve our energy problems with wishful thinking. It would be a betrayal to the people of this country to me, especially those that will be here 10, 20 or 30 years from now, to base policies on this kind of thinking. This is why I would be very hesitant to turn any State loose and say, "You can make your own policy by yourself."

Mr. GRAINEY. I agree with you on the basic questions that you posed. My Governor, for example, has been very concerned about the lack of progress with thermal plants of all types in the Northwest, both nuclear and coal. But if the States, I think, rightly or wrongly, are going to do what they are going to do anyway in energy planning, then the question is how do you do that in a way that is most productive in terms of Federal-State relationships and in terms of each individual State?

Mr. MCCORMACK. I agree. I completely agree. This is what we have to try to figure out in this bill.

Mr. GRAINEY. Yes, sir.

Mr. MCCORMACK. I think that's the thrust of the bill, to try to figure out how to help the Federal-State relationships and the local relationships.

Go ahead, Mayor Hutchinson.

Mayor HUTCHINSON. The Federal and local also.

Mr. GRAINEY. I hope that the bill doesn't become too broadly focused in that respect. I see it as an important conservation and renewable

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incentive program. It is one piece of the pie. The problems which you raised, which I think are very important, they cut across much broader issues.

Mr. MCCORMACK. It is one thing to provide 40 percent tax incentives for people that have solar energy, or the insulation in their houses, and I support that. I originated that. But it is quite another thing to write policies that will establish legislation that infers that we will solve our energy problems or that we should base our planning on it. That's the thrust of my question about this entire hearing.

Mayor REDFEARN. I think that I should emphasize one or two very important things about local government. Most local governments spend better than 90 percent of their tax revenues on fire protection, police protection and public works. Ours runs almost 95 percent. Most local governments are served by people that serve their council, on it, as unpaid, or poorly paid, or ridiculously paid. They do this as a public service. Even our public utility board serves unpaid. This committee has a staff to do its work. We have to have a staff. We have one man in a city of 160,000 who is trying at this time to formulate for my office an energy task force plan so that we can get down to the business of working with the national objective of reducing energy demands and using energy more efficiently from whatever source. The Community Energy Act, or whichever form it gets through is of particular importance to the community. Quite frankly, we do need at this time a modest investment in people to do the leg work. You don't get the communities to work together without people willing to be paid to do the job. They don't work for nothing. Volunteers will not solve this problem. The Federal Government has, many, many times had to do this. Mr. Chairman, from the Federal to the State and local governments. We feel most comfortable with a direct local-Federal role. That comes from our problems with our own State government. We may even have, or there is initiative in our State now with no nuclear power, as such, until the waste problem is resolved.

Mr. MCCORMACK. I didn't know that when I made that statement.

Mayor REDFEARN. It is of concern.

Now, the thing that has to be kept in mind is that the individual decisions and the people that are going to make the energy policy in this country, we have got to get the information to them. We have got to work with neighborhood groups. Just a simple proposal to buy land around a powerplant for generation will take a lot of coordination. My salary is $200 a month, which is a tokenism. I don't have the time. And I don't have enough staff. We are going to try to make it on declining revenues. We know that we need to put more money in. We will cut our police force and our fire protection as it is. These acts, no matter how they come out of the Congress, they will channel efficient money to the cities. The Federal Government has every right to expect efficient use of these funds, and that they do generate some conservation.

Now, I will agree with the chairman, that conservation is not the entire answer. I also remind you that it was about 20 years ago that the nuclear industry said that nuclear power would make energy too cheap to meter.

Mr. McCormack. Please don't say that. There was one man, an unofficial person, who once made that statement. It is very important that we get that straight.

Mayor Redfearn. Yes. There are opinions on conservation, nuclear power and coal. Conservation can never solve everything. It would be ridiculous to think so. It has a great potential right now to immediately cut the cost to the citizens. I have not seen any data whatsoever that shows we that coal-fired plants or solar energy or biomass, which I have some serious reservations about from my own training, or nuclear power, that this will essentially cut the cost right away. Right now the citizens need a cut in cost. Conservation is the answer. It gives us the time to work out a balanced program, one that we all seek.

Mr. McCormack. We are very much in agreement, and I believe that there are very few persons in America that would disagree with your statement about conservation. I certainly applaud it.

Would you think if this bill were written so it emphasized energy conservation and energy production, that is, planning for energy production without any reference to renewable or any other technology?

Mayor Redfearn. I think the bill should probably, or that we should divide the question. I think that the bill should be most proper to address itself to the immediate problem in the next two decades to the year 2000 as to what contribution we have, as to what conservation can contribute. The problem of production also needs to be addressed apart from this. If we divide the question in what sense, Mr. Chairman, legislatively? I think that we can get around the differences that we may have on this. Conservation is something that we have got to have. We have got to be more efficient in the use of whatever source of energy we get. I think that we ought to address that issue directly. Then we should go to the energy production and go over the rest.

Mr. McCormack. Do you think the idea of energy conservation is more a local issue and that energy production is more a regional issue?

Mayor Redfearn. I think so. I may regret it later, but off the top of my head, yes.

Mr. McCormack. I won't hold you to it. I am not writing the legislation all by myself.

Mayor Hutchinson. I think that we would support anything if we could get a bill. We need a bill. Amending the bill to make it broader will delay the bill. I don't think it is in the public interest to go that route. We should not have appointed regional councils.

Mr. McCormack. But if it is regional, it still has to be elected officials.

Mayor Hutchinson. I don't want to open that box, Mr. Chairman.

Mr. McCormack. I think the idea of citizen panels assumes the public elected officials are incompent or dishonest. I disagree on both counts.

Mayor Hutchinson. Yes.

Mr. McCormack. Gentleman, I want to thank you very much for your time today.

Mayor Hutchinson. Thank you.

Mayor Redfearn. Thank you, Mr. Chairman.

Mr. McCormack. I want to thank you for your contributions. We recognize some of the problems, and we shall benefit from this a great

deal. We will also benefit a great deal from the testimony of the other witnesses today.

Mr. GRAINEY. Thank you.

Mr. MCCORMACK. Any other questions?

[No response.]

Mr. MCCORMACK. Thank you very much.

The subcommittee stands adjourned.

[Whereupon, at 12:25 p.m., the subcommittee adjourned, to reconvene at the call of the Chair.]

APPENDIX

THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D. C. 20410

MAY 13 1980

Honorable Mike McCormack
Chairman
Subcommittee on Energy Research
and Production
House of Representatives
Washington, D.C. 20515

Dear Mr. McCormack:

This is in reply to your request for a witness to appear today before the Energy Research and Production Subcommmittee concerning HR 4382, the Energy Management Partnership Act.

As your staff was advised by telephone on May 9, the Department of Energy has been designated as the lead Federal agency on issues concerning the proposed Energy Management Partnership Act. We regret that we were unable to testify, but we are glad to provide our comments on the issues you raised in your letter.

1. Energy planning and coordinating functions at the state level are necessary to effectively operate several existing Federal programs administered by DOE. In addition, states have certain jurisdictional and political responsibilities which can be brought to bear on local energy use. The Energy Management Partnership Act capitalizes on the large potential contribution of both state and local governments to the nation's energy goals. To be truly effective, state plans will have to be carried out in partnership with local governments. In the residential sector, state governments can create various opportunities for wise energy use which local governments may be asked to implement.

Nationally speaking, there is a wealth of housing experience at various state agencies and especially at the local government level which can be identified and focused on energy matters. EMPA will facilitate this because of the comprehensiveness of the state energy planning to be required.

2. We believe that geothermal and low-head hydroelectric energy offer significant opportunities to achieve community and economic development objectives at the local level.

Under our Urban Development Action Grant Program we have recently identified geothermal and hydroelectric systems and several other renewable and alternative energy technologies as eligible for HUD support. Local economic development strategies could apply the new technologies to making existing enterprises more economical. Or, the technologies could in and of themselves prove to be economic development ventures. For example, establishing a small-scale hydroelectric generating project would allow the local government and its partners in the private sector to sell the power to a larger utility grid, or to industrial or commercial uses, or use it to power public facilities. In each case, the local government receives an economic benefit from the overall venture.

Under our Community Development Block Grant Program, the City of Klamath Falls, Oregon is implementing a district heating system based on local geothermal resources. Among other benefits, the project promises to reduce the energy costs of the City's low- and moderate-income residents.

Therefore, we are pleased to see that the proposed legislation allows for developing low-head hydroelectric, geothermal, and other renewable or alternative energy strategies at the state and local level.

3. Although a number of the conceptual issues regarding the Solar and Conservation Bank have been informally agreed upon, many significant issues remain unresolved, including maximum loan limits and subsidy levels for conservation as well as a definition of "solar energy systems." Moreover, many of the actual "agreements" between staff remain to be actually drafted and are still, therefore, uncertain. However, some general comments regarding the relation of the Bank to the EMPA legislation can be made.

For the most part, the Solar and Conservation Bank will be a "demand-based" program operating in the market place through private lending institutions. In many ways, the Bank will operate in a manner much like the "tandem" subsidy program of the Government National Mortgage Association (GNMA). Subsidies are provided by GNMA to local banks through private agents -- the Federal Home Loan Mortgage Corporation and the Federal National Mortgage Association. In many ways, the operations of GNMA served as a legislative "model" for the Solar Bank.

Because of the essentially market-oriented nature of the Bank's operations, the direct links between the Bank and the public planning and local government programs called for in the EMPA legislation will be limited.

However, there are a number of complementary areas. Sections 356 and 357 of the EMPA legislation call for public programs of education, outreach, information dissemination and technical assistance on conservation and solar energy. To the degree states and local governments educate consumers and local groups on the merits and methods of conservation and solar energy and of various public subsidies, demand for the Bank's programs can be stimulated and its effective use assured.

The Solar and Conservation Bank legislation will also permit local governments to qualify as "lenders," thereby participating in the Bank's programs. This again can result in complementary activities between EMPA and the Bank. If, as a result of "State Energy Plans" called for in Section 355 of EMPA, states and local governments determine that in order to meet state energy goals, there is a need for local governments to serve as financial institutions to make solar and conservation loans and if such local governments are so funded pursuant to Section 358, it would seem that these same units of local government would choose to participate in the Bank's subsidy programs.

Finally, let me say that planning for the Bank is proceeding as fast as legislative developments permit. We have already made substantial progress in drafting a planned Advanced Notice of Proposed Rulemaking (ANPR) and will proceed to issue such notice as well as proceed to development of actual regulations when all substantive issues regarding the Bank are resolved and authorizing legislation is signed into law.

4. The Department would be glad to respond to this question, if you will provide a copy of "Subpart C of the draft language" referred to therein.

5. HUD looks forward to assisting DOE in improving the role which states and local governments might play in promoting local energy planning and management. As proposed by EMPA, the consolidation of several pre-existing DOE state energy assistance programs will certainly improve their effectiveness. I have full confidence in DOE's ability to succeed in upgrading state-level energy efforts.

HUD has been long concerned with improving the functioning of local governments, i.e., cities, towns and counties, particularly in the areas of housing, community, and economic development. In fact, local housing, community, and economic development efforts can be enhanced and complemented by energy programs. We therefore have a significant interest in how the EMPA energy assistance to local governments is administered. We stand ready to assist in its implementation. The question in my mind is not whether HUD or DOE is in a better position to administer the program. Rather, it is how the two Departments can collaborate on helping local governments -- states and their sub-jurisdictions -- with energy problems and needs. The challenge is for HUD and DOE to join in maximizing each other's unique capabilities and experiences for the betterment of local energy programming.

Please let us hear from you if the Subcommittee has additional questions on the energy aspects of HUD's housing and community development programs.

Sincerely,

for Moon Landrieu

FEDERAL EMERGENCY MANAGEMENT AGENCY
Washington, D.C. 20472

MAY 19 1980

Honorable Mike McCormack
Chairman, Subcommittee on Energy
Research and Production
Committee on Science and Technology
House of Representatives
Washington, DC 20515

Dear Mr. McCormack:

Thank you for the invitation, dated May 9, to testify at a hearing on May 13, 1980 on H.R. 4382, the Energy Management Partnership Act. I regret that my schedule precluded my appearance at the hearing. Other appropriate FEMA staff members, also, had extremely busy schedules that prevented their appearance. In lieu of a personal appearance we submit the following statement.

We understand that the Department of Energy submitted, on April 15, 1980, amendments to H.R. 4382 in the form of a substitute bill which is now before your committee. Our comments are directed to the Administration substitute bill.

FEMA was activated one year ago to consolidate the Federal Government's emergency preparedness activities in one agency. In that year we have witnessed substantial benefits in preparedness from the coordination of diverse activities through a single set of criteria for program review and priorities. We anticipate further benefits as experience is gained in refining and reinforcing interrelationships of programs and personnel.

We see similar benefits accruing to our country from the "Energy Management Partnership Act of 1979." Under this bill, the Secretary of Energy will provide criteria to ensure effective implementation of national emergency objectives for State and local governments and Indian tribes in developing, modifying and implementing State energy plans. The plans will be developed at the governmental level best located to provide timely response as problems develop. The bill wisely combines conservation activities, including expanded use of renewable resources, with emergency planning. FEMA, of course, is particularly interested in emergency planning and is developing, with other Federal agencies, an "Energy Emergency Response Structure" that envisions substantial roles for State and local governments. We anticipate that State energy plans will include specific actions to implement State functions of that response structure.

In the mid-60's the Federal Government provided assistance to the States for developing Emergency Resource Management Plans but no funds have been provided for updating those plans. The Administration substitute for H.R. 4382 corrects this deficiency, in part, by providing assistance to emphasize energy as a major resource in the context of its significance to all sectors of our economy and our way of life.

FEMA strongly endorses and supports H.R. 4382 as amended by the Department of Energy in its substitute bill. The Office of Management and Budget does not object to submission of this statement.

Sincerely yours,

John W. Macy, Jr.
Director

PROPOSED AMENDMENTS TO THE
ENERGY MANAGEMENT PARTNERSHIP ACT

House Committee Print May 2, 1980 Section/Page/Line	Senate Committee Print May 7, 1980 Section/Page/Line	Proposed Amendment	Comments
353(a)/5/12	353(a)/5/15	Between "prescribe" and "regulations," add the phrase, "within 30 days after the effective date of this Act."	Under the present version there is no requirement specifying when the Secretary must prescribe regulations. This amendment will mandate that the Secretary prescribe the needed regulations within 30 days.
353(b)/5/18	353(b)/5/21	At the end of the first sentence, delete period and add, ", within 60 days of the receipt of the application, unless the time for action by the Secretary is extended by mutual agreement."	Under the present versions, there is no requirement specifying when the Secretary must approve an application for assistance or a state plan. This amendment would require the Secretary to make a decision within 60 days of the receipt of the application.
353(b)(1)/5/20	353(b)(1)/5/23	Between "the" and "requirement," add the word "informational."	Technical amendment.
353(b)(2)/5/22	353(b)(1)/6/1	Delete existing (2) and substitute the following, "(2) the proposal for assistance does not violate any provision of federal or state law."	As written, it is uncertain by what standard a state's proposal would be judged, since DOE programs are not always consistent. The proposed amendment would provide a much more concrete standard for review.

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PROPOSED AMENDMENTS TO THE ENERGY MANAGEMENT PARTNERSHIP ACT

House Committee Print May 2, 1980 Section/Page/Line	Senate Committee Print May 7, 1980 Section/Page/Line	Proposed Amendment	Comments
354(a)/6/15	354(a)/6/16	At the end of subsection 354(a) add the following, "Where a state has a planning process in effect on the date this Act became effective, which substantially complies with the requirements of §354(b), the timing process of §354(a) shall be modified to permit the continuation of the state planning process so long as the state submits its plan for review by the Secretary biennially.	California and any other states already have biennial energy planning processes which accomplish the same goals as does this §. Spacing of state submissions has an advantage over batching all submissions, since it would help balance DOE's workload.
354(b)/6/16	354(b)/6/17	Add at beginning of sentence, "within 30 days after the effective date of the Act."	Under the present version there is no requirement specifying when the Secretary must prescribe regulations. This amendment will mandate that the Secretary prescribe the needed regulations within 30 days.
354(d)/9/4	354(d)/9/13	Add at beginning of sentence, "Within 60 days after submission of the plan,".	Under the present versions, there is no requirement specifying when the Secretary must approve an application for assistance or a state plan. This amendment would require the Secretary to make a decision within 60 days of the receipt of the application.

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PROPOSED AMENDMENTS TO THE
ENERGY MANAGEMENT PARTNERSHIP ACT

House Committee Print May 2, 1980 Section/Page/Line	Senate Committee Print May 7, 1980 Section/Page/Line	Proposed Amendment	Comments
354(d)(1)/9/7	354(d)(1)/9/16	Add between "the" and "requirements" the word, "informational."	Technical amendment.
354(d)(2)/9/9	354(d)(1)/9/18	Delete existing process; substitute the following, "(2)The state energy plan does not violate any provision of federal or state laws."	As written, it is uncertain by what standard a state's proposal would be judged, since DOE programs are not always consistent. The proposed amendment would provide a much more concrete standard for review.
355(a)(3)/12/5	355(a)(3)/12/3	Insert between the words "which" and "permits" the following, ", to the maximum extent practicable consistent with safety,".	Under existing law, safety is an allowed consideration in implementation.
356(4)/13/9	356(4)/11/1	At end of sentence add a new sentence as follows. "Nothing in this section shall require the state to pay the costs of intervention for others in electrical and gas utility regulatory proceedings."	As written, this section could be interpreted to require payments by the state for intervention in proceedings. This amendment would clarify the Congressional intent that this type of funding is not required.
357(a)(3)/14/5	357(a)(3)/14/25	Between "a" and "statement" add the word "detailed"; at end of the sentence add "and a specification of the changes necessary in order for the state's plan to be approved."	This amendment would require DOE to specify in detail the changes it deems necessary in order for it to approve the plan.

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PROPOSED AMENDMENTS TO THE
ENERGY MANAGEMENT PARTNERSHIP ACT

House Committee Print May 2, 1980 Section/Page/Line	Senate Committee Print May 7, 1980 Section/Page/Line	Proposed Amendment	Comments
358(a)(2)/15/5	358(b)(1)/15/24	Insert between "funds" and "from" the following, "or assistance in kind".	This would permit in kind payments, consistent with the treatment of local applicants.
358(b)(2)/16/6	358(b)(2)/15/9	Delete the word "may" and substitute "shall".	Under the Energy Emergency Conservation Act of 1979 (EECA), if the President declares a severe energy supply disruption, the state has 45 days in which to prepare the plan. Requiring matching funds may prohibit states from complying with EEAA.
360(b)/17/22	361(b)/19/13		An upper limit should be placed on the amount the Secretary may utilize.
	363(c)/20/12	Add, "(d) The Secretary shall not approve an application if the application is inconsistent with the appropriate state energy plan."	Addition of this section will ensure that the actions of the Secretary are consistent with the goals and policies of the states.